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THE USE OF THE EDUCATIONAL FILM IN PRIMARY EDUCATION IN ROMANIA. LITERATURE REVIEW

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ABSTRACT

In the introduction, the paper makes a brief presentation of the topics related to the use of films in the education system, which are included in the works in the field of education sciences. As a result of the study of articles available on the Internet, 38 studies have been identified, authored by researchers. These contain some results regarding the use of film for educational purposes. 16 articles refer to the use of films in the education system, at different levels, and 15 articles refer to the use of films in primary education. Seven articles published in the period 2013-2020 presented detailed research on the use of films in primary education. The literature analysis is systematized on four directions: factors that influence the use of educational films in primary education; selection of educational films for their use in primary education; improving educational films for their use in primary education; the modality of using the educational films in primary education and the results obtained as a result of their use.

Keywords*: on-line education, audio-video resources, Mentimeter app, learning platform, Zoom*

INTRODUCTION

In the Romanian literature, the role of films in representing some aspects of reality (Dulamă, 1996), the functions of the means of education in the educational process and the advantages that films bring in the lesson are

emphasized (Dulamă, 2000, p. 134). Films are considered as a source for obtaining information and for capturing attention through stories (Dulamă, 2006, pp. 35-36; Dulamă, 2008a). Films are considered by teachers important in environmental education, in education for sustainable development (Ilovan et al., 2018b; Ilovan et al., 2019), in forestry education (Dulamă et al., 2016; Dulamă, Ilovan & Magdaș, 2017), and in knowing places (Dulamă, 2014). 76% of the 100 primary school teachers in Sălaj County claimed that students were involved and highly involved in the lessons in which multimedia was used (Magdaș, Vereș & Dulamă, 2019).

Films are included in various categories of educational resources (Dulamă, 2010, 2011, 2012). Certain types of films are presented (Dulamă, 2000, p. 135) and various film formats are described (Todoran, 2004; Ciascai, Dulamă & Marchiş, 2007). In the field of education sciences, research presented the way of preparing the teaching activity based on the film (Dulamă, 2000, p. 135; Dulamă & Roșcovan, 2007, p. 281) and the methodological approach of using films in the lesson (Dulamă, 2000, p. 136; Dulamă, 2001, p. 101; Dulamă & Roșcovan, 2007, p. 238). Several learning contexts organized based on films (Dulamă & Gurscă, 2006; Ciascai, Dulamă & Marchiş, 2007; Dulamă & Roșcovan, 2007, pp. 282-283; Dulamă, 2008a, pp. 42-43; Dulamă, 2008b, pp. 132-133), training models (Dulamă & Ilovan, 2007) and a series of rules regarding the integration of films in the lesson are detailed (Dulamă, 2000, p. 136; Dulamă, 2006, p. 38).

The rapid development of low-cost communication and information technology positively influence the process of making and distributing films. Many teachers, students and pupils in Romania have access to electronic devices that they use for documentation (Magdaș, Ilovan & Ursu, 2018), for making films (Dulamă, Magdaș & Chiș, 2020; Dulamă et al., 2020) and their posting on the internet (Dulamă et al., 2019), thus contributing to the increase of the educational offer. Teachers, students and pupils in Romania are interested in developing technology, training their own digital skills and allocating large resources of time to use it for various purposes (Magdaș, Vereș & Dulamă, 2019).

From the above presented research results, there are several premises that favour the use of films during the teaching process: educators and teachers highlighting the films' role in learning processes; rapid development of communication and information technology; access to this technology at reasonable costs; interest in the Internet and social media, digital skills knowledge and development; the existence of a rich and varied offer of films available for free on the internet. However, based on personal observations, we have the perception that films are little used in the Romanian education system, and our perception is supported by the existence of a small number of studies on the use of films, especially in primary education.

The purpose of this research is to conduct a review, an analysis and a synthesis of the literature, which refers to the use of educational films in primary education in Romania especially. The objectives pursued were: (1) reviewing the literature regarding the factors that influence the educational use of film for educational purposes; (2) reviewing the literature on the

selection of educational films for use in primary education; (3) reviewing the literature on improving educational films for use in primary education; (4) reviewing the literature on the use of educational films in primary education and the results obtained by students as an effect of this use. This literature review is useful for those who carry out research in education sciences (students, pupils, Ph.D. students, researchers, professors) in order to carry out bachelor's, dissertations, doctoral dissertations, to obtain the first degree, as well as other studies. This study also provides useful information to those who realise environmental education (Geography, Biology, primary school teachers and others). The relevance of this study is given by the in-depth research of this topic, the number of papers studied and the rigorous analysis performed on them.

METHOD

In order to achieve some theoretical information, we studied over 20 pedagogical and didactic papers published in the last 35 years in Romania and from those results we extracted concise information regarding films. In this direction, the research can be extended to other research. In order to select the papers that refer to factors or conditions that influence the use of educational films in education, to the selection, analysis, improvement and use of educational films in primary education, we searched the publications in several databases (Web of Science, Science Direct, Scopus, Proquest, Eric). We used the Google Scholar search engine to expand the research. In our search we used the phrase "educational films" or the word "science" and we identified 38 items. In 16 articles, there are references on the use of films in the educational process, in 15 articles on the use of films in primary education, and in seven articles published in the period 2013-2020, there are presented in detail research results on the use of films in the primary school. This issue expresses the low interest of researchers in Romania, compared to the use of educational film in primary education.

RESULTS

(1) Factors that influence the use of educational films in primary education

There are various criteria according to which the factors are grouped in the literature. In order to systematize the factors that we consider influencing the use and efficiency of the use of films in environmental knowledge, in primary education, we associated these factors with the sources that generate them: development and access to communication and information technology, development of educational resources and access to them, educational infrastructure, teachers and students.

a. Factors related to the development and access to communication and information technology. Currently, the development of technology allows the purchase of electronic devices (laptops, smartphones), at reasonable costs by teachers and students and at the institutional level and other products (video projectors, smart boards). Electronic devices are used for documentation by primary school teachers, for the design and implementation of teaching activities (Vereș & Magdaș, 2020b; Vereș, Dulamă & Magdaș, 2020; Vereș et al., 2020b). Students use electronic devices for documentation (Magdaș, Ilovan & Ursu, 2018), for research in a specific field (Rus et al., 2019), for projects (Ursu, Dulamă & Chiș, 2019).

In 2020, within the context of the COVID-19 pandemic, many teaching activities were organized online. Several studies have analyzed how to use multimedia learning and how to capitalize platforms within this context (Vereș et al., 2020b; Dulamă & Ilovan, 2020; Ilovan, 2020), as well as the use of videoconferencing platforms for activities with students (Vereș et al., 2020b).

b. Factors related to the development of educational resources and access to them. Currently, the development of communication and information technology allows a quickly and easy production of films for educational purposes (Dulamă et al., 2019). Regarding the use of films in teaching, primary school teachers believe that the high frequency of their use is determined by their easy online access and their use in the classroom (Magdaș, Vereș & Dulamă, 2019). Studies show that teachers and students can make educational films using smartphones (Dulamă et al., 2019; Dulamă, Magdaș & Chiș, 2020) and using the Zoom platform (Dulamă et al., 2020; Ilie et al., 2020b). The distribution, viewing and downloading of various films is also done quickly and easily, using the facilities offered by social networks, especially Facebook and the YouTube application (Magdaș, Ilovan & Ursu, 2018).

Researchers pointed out that watching films and using them in teacher-managed learning activities is easy on learning platforms (Ilie et al., 2020a; Ilie et al., 2020b; Vereș et al., 2020a). Other studies show that the National Aeronautics and Space Administration (NASA), the European Space Agency (ESA), the Southern European Observatory (ESO) and other organizations make videos and distribute them to the public, free of charge, through social media channels (Vereș & Magdaș, 2020b). Studies show that there is a very large offer of films that can be used for free on the Internet (Ilie & Cristea, 2020; Ilie et al., 2020b).

c. Factors related to the educational infrastructure. Within the educational system, the use of multimedia, including watching films, is conditioned by the characteristics of the school infrastructure (buildings, classrooms, facilities). In official documents, the education infrastructure is considered as "an essential factor of the educational process, which has a

direct effect on students" (MEC, 2017, p. 4). It is already acknowledged that there are some differences between urban and rural infrastructure (MEC, 2017, p. 13) and that differences in educational infrastructure may generate some gaps between the quality of students' education attending rural schools compared to urban ones (p. 14).

In the research conducted by Botnariuc et al. (2020, p. 12), the surveyed teachers point out, in turn, the difficulties they have in carrying out distance teaching activities: "lack of tools for classroom management, for feedback and evaluation, technical difficulties - platforms to be installed, or out of order", "lack of educational content (digital resources) in the field, lack of a sufficiently efficient computer", "limited Internet access". This study highlights the differences depending on the school's residential environment (rural/urban): technical difficulties, equipment, and Internet access (MEC, 2017, p. 13). Regarding school infrastructure, a small sample of primary school teachers considered it less suitable for the use of digital textbooks, while many teachers and students in some schools have electronic devices and the necessary skills (Dulamă et al., 2017).

Watching films is positively influenced by the existence of smart boards in the classroom. In a study where 30 teachers from pre-university education participated in, a third of them claimed that they used smart boards daily (Zoltan, Magdaș & Dulamă, 2019; Magdaș, Zoltan & Dulamă, 2019), which indicates that they have this educational resource in the classroom. 83% of the surveyed teachers claimed that they had access to the smart board whenever they needed it, both inside or outside their classroom (i.e. in another classroom).

In Romania, the use of educational films is supported by developing digital textbooks (MEN, 2014). In several studies on Mathematics and Environmental Exploration textbooks for the 2nd grade, it was stated that the educational films were included in interactive learning activities within these textbooks (Buzilă et al., 2017; Dulamă et al., 2017; Magdaș et al., 2017a; Ilovan et al., 2018a).

d. Related factors regarding teachers. In a survey of a small sample of primary school teachers, they claimed they had the technology to use digital textbooks in Mathematics and Environmental Exploration (class II) (m > 3.60), they had digital skills (m - 3.61) and the experience to use them (m - 3.33) (Dulamă et al., 2017). In other studies, the surveyed teachers showed interest in developing the digital skills needed to use information technology in teaching and adapting it to digital native students (Magdaș et al., 2017b; Magdaș et al., 2018; Magdaș, Vereș & Dulamă, 2019), so they have the availability to use educational films in the classroom.

Teachers in Romania, like those in other countries, admit that they are not sufficiently prepared to use digital textbooks that have been gradually introduced into the education system (Manasia, Pârvan & Paraschiveanu, 2013). This opinion was also expressed by primary school teachers (Magdaș & Drîngu, 2016). In the questionnaire filled in by 100 teachers for primary education, 80% of them claimed that they used films (short documentaries

or animations) in Mathematics and Environmental Exploration lessons during the preparatory class (Magdaș, Vereș & Dulamă, 2019).

e. Related factors regarding students. Several studies emphasize that multimedia use is sustained by the fact that students have tablets, smartphones, and other electronic devices (Rus et al., 2019). In the study conducted on a small sample of primary and rural primary school teachers on digital textbooks in Mathematics and Environmental Exploration (2nd grade), they claimed that a large proportion of students (m > 3.7) had the necessary technology to use them, but they were less skilled (m - 3.30) to do so (Dulamă et al., 2017).

In the research conducted by Botnariuc et al. (2020, p. 38) regarding the development of online activities, caused by the COVID-19 pandemic, the surveyed teachers claimed that students had difficulties in participating in distance learning activities: "technical difficulties (73%)", "lack of habit in learning by the use of online technologies (71%)", "insufficient level of digital skills (68%)", "lack of adequate equipment (65%)", "limited Internet access (64%)", "lack of support / lack of interest/ bans from adults (59%)". This research refers to studies claiming that students have the "habit" of using devices in activities like "socialization, music and entertainment" and emphasizes that "the student has access to digital information, but is not accustomed with to learning in this respect" (Botnariuc et al., p. 38). We believe that students would face all these difficulties in the activities in which they would watch movies for educational purposes recommended by the teacher or available on the Internet.

Regarding the allocation of time resources by students for multimedia viewing, research has found that pupils and students allocate a large amount of time resources for various activities in which they access the Internet (Dulamă, Magdaș & Osaci-Costache, 2015), including those carried out on social networks, like Facebook (Dulamă, Vescan & Magdaș, 2016).

(2) Selection of educational films for their use in primary education

Researchers in Romania studied the process that teachers had gone through to select the films they had used in teaching activities, the criteria based on which the selection had been made and analyzed in detail the films they had used for educational purposes (Ilie & Cristea, 2020; Ilie et al., 2020a, 2020b).

a. The content of educational films. The films that were watched by students in the context of action research in primary education, during activities concerning environmental education, aimed at knowing the life cycle of plants (Ilie & Cristea, 2020), the rural settlements in Romania (Ilie et al., 2020b), the relationship between organisms and their living environments (Ilie et al., 2020a). In other research, animated films about the environment (Iurean, 2018, 2019), the solar system (Vereș & Magdaș,

2020a), the water circuit in nature (Vereș, Dulamă & Magdaş, 2020), the formation of the seasons were watched (Vereș et al., 2020a).

b. Selection of educational films for their teaching purposes. In order to select the most suitable educational film to be used at home or in class and to be watched by students aged 8-9, the teachers involved in three action research projects went through three stages: watching educational films on YouTube, establishing criteria on the basis of which to select them and the actual selection (Ilie & Cristea, 2020; Ilie et al., 2020a, 2020b). The researchers pointed out that the choice of the most suitable film was made starting from a very rich offer of films available for free on the internet: 7,890 existing videos on YouTube (Ilie & Cristea, 2020), and 36 films (Ilie et al., 2020b).

Ilie and Cristea (2020, p. 65) argued that, in order to be used in a learning activity, the educational film should be selected based on qualitative criteria (clear image, normal frequency of frames, Romanian soundtrack - in this case), technical (digital format, possibility of broadcasting with available equipment, 10-15 minutes length), pedagogical (highlighting the proposed topic, content appropriate to students' objectives and characteristics, allowing the use of various teaching strategies, allowing the intervention of the speaker during its broadcast). As benchmarks, Ilie & Cristea (2020, p. 65) mentioned the criteria based on which the educational films could be classified: analog film and digital film (Todoran, 2004, pp. 37-37); purpose (motivation film, lesson film, problem film, synthesis film (Ciascai, Dulamă & Marchiș, 2007); author (amateur, professional); duration (short, medium, long); filming position (on the terrestrial surface, by drones), recipient (general public, specialists in a field), shooting speed of frames (normal, accelerated, slow motion or slow motion playback) (G. Asachi Technical College, nd-a).

c. Analysis of educational films. At the film "Bean Time-Lapse - 25 days | Soil cross section" (Gphase, 2018), the researchers (Ilie & Cristea, 2020) analyzed the content (development of a bean plant: root in the soil, stem, and leaves), the producer's skill, duration (short - 3.09 minutes), and soundtrack (musical). As deficient aspects, the researchers mentioned that the development of all parts of the plant was not filmed / presented and that there was no comment in which to provide information. Regarding the movie "SUPLAI village - seen from above - A corner of RAI!" (Morar & Ciunterei, 2018), researchers (Ilie et al., 2020b) analyzed the content (hearth and border of the village), how to make the film (aerial filming by drone), soundtrack (musical), and duration (short - 3 minutes and 10 seconds).

Regarding the documentaries "Wildlife in Bukovina's mountains during AUTUMN" (Bodnari & Orhean, 2014) and "Wildlife in Bukovina's mountains during WINTER" (Bodnari & Orhean, 2015), the researchers (Ilie et al., 2020b) analyzed the content (relations between organisms and their habitat: Bucovina Mountains), duration (27.41 minutes; 30.33 minutes),

soundtrack (oral text), and comment (appropriate, in Romanian, according to the sequence of things).

Regarding the duration of the films, Ilie & Cristea (2020) consider that for children aged 7-10 it is appropriate to watch for a maximum of 10-15 minutes. The duration of 27.41 - 30.33 minutes was assessed as appropriate for students in the preparatory class within the context in which they watch films at home, at their own pace, during two days (Ilie et al., 2020a). Regarding the oral text of these films, the one about autumn contains 638 words, and the one about winter, 1,021 words. The text of the films is considered by researchers to be so valuable because the concepts are explained appropriately to the topic proposed for study to students. The researchers point out that the oral text in the film fits the images.

(3) Improving educational films for their use in primary education. In the research conducted by Ilie et al. (2020b), the primary school teacher replaced the soundtrack with her own commentary using two applications. By using the application available on the website *www.loom.com*, the researchers found that the film is over 70 MB, so it cannot be sent to students by email, within the context of organizing online activities. The researchers found the advantages of the Zoom platform, compared to Loom: permanent free access, the recording has the smallest size (less than 20 MB, for the same film), so it can be sent to students by e-mail. The Zoom platform has the disadvantage that it does not provide space for storing films. The advantage of the Loom website is that it offers storage space for records, a link is generated to be sent to students, but it is available for free only for a month.

The researchers pointed out that this process of recording the comment designed by the teacher was long, required several versions and the use of several tools offered by the platforms. These difficulties were explained by the fact that the teacher was not "introduced to the use of those tools". Obstacles were also noted regarding the "clarity of the recording, determined by the teacher's diction" and the tone of voice (Ilie et al., 2020b). The process of creating the text by the teacher in order to accompany the images unfolded in the film was considered difficult because it required geographical competences and image-sound synchronization.

(4) The modality of using the educational films in primary education and the results obtained because of their use. In the analyzed studies, we followed several aspects: the stages covered in action research; the results obtained by the students at the administered tests; the conclusions reached by the researchers (positive aspects, but also deficiencies, problems); teaching methods used by the teacher; the context in which the activities were performed; the role of the teacher in understanding the content of the films watched by the students.

In the action research, organized in the second grade (28 students), for the "Mathematics and Environmental Exploration" school subject, Ilie &

Cristea (2020) investigated the process of knowing the life cycle of plants by students, using an educational film and other educational resources (study guide, worksheets, drawings). An initial test was applied to the experimental and control groups to identify students' knowledge of the topic. The students then watched the movie "Bean Time-Lapse - 25 days/ Soil Cross Section" (Gphase, 2018). Based on the film the experimental group was given the task to answer ten questions from a study guide. They could read the questions before and during the viewing of the film, answering them at the end of the watching. A test was applied to both groups to check the amount of knowledge gained by watching the film. The experimental group students were subsequently involved in a learning activity based on the film, after which they solved the third test to establish their volume of knowledge, at the end of the activity led by the teacher.

But without further explanation, the students' results did not improve after watching the film, or in the experimental group that received the study guide before watching. The results indicate the inefficiency of watching the film without oral commentary. The study guide did not fulfill the function of facilitating the understanding of the visual message in the film. The organized activity and the results demonstrated the need to involve students in film-based learning activities, under the guidance of the teacher (Ilie & Cristea, 2020). The results (a large volume of knowledge) of the experimental group in test 3 demonstrate the effectiveness of the learning activities coordinated by the teacher, after reviewing the film. The researchers concluded that students did not understand the content of the film (although they had access to thousands of films on the Internet) if they did not receive explanations from the teacher, which might enable them to understand the reality presented in the films.

In the action research organized online, on the Zoom platform, in June 2020, 16 students divided into two groups, from the preparatory class, participated in a learning activityin order to give more time to the dialogue with each student (Ilie et al., 2020b). The activity with each group lasted 40 minutes, the limit imposed by the Zoom platform. The process of knowing a rural settlement based on a film was investigated. Each activity included several stages: oral discussion with students to verify their knowledge of rural settlements; watching the film about the village of Suplai with the comment added by the teacher (Morar & Ciunterei, 2018); conversation with students based on the film (a suite of eleven questions); film review; film-based conversation. While watching the film, the teacher found that the students did not hear the soundtrack of the film properly; therefore, she added directly, orally, the previously conceived commentary.

In the first discussion about rural settlements, it was found that students did not know the concepts, even if they lived in villages. After watching the film, the students could not answer the questions, as they formulated more answers that contained information from other sources or based on previous observations of the characteristics of the village and the city. After the second viewing of the film, the students who lived in the houses, in the village, offered wider answers. The fact that, during the explanations, the students highlighted connections with the reality in their

garden or village indicated that the information presented resulted from the knowledge of the environment in which they lived, not from the film. It was found that the students listed and described what they saw, not the information perceived from the teacher's presentation. The researchers found that they did not acquire certain concepts even after two views and explained that situation by the high degree of complexity and abstract nature of the concepts, by large spatial extension of the sets of elements, which required a long and rigorous perception.

In the action research organized by Ilie et al. (2020a) in August 2020, 16 students from a preparatory class participated. The stages covered were the following: distribution of a knowledge test on the class group created on Facebook; posting links to YouTube, for watching two films that capture the relationships of organisms with the environment: "Wildlife in Bukovina's mountains during AUTUMN" (Bodnari & Orhean, 2014) and "Wildlife in Bukovina's mountains during WINTER" (Bodnari & Orhean, 2015); watching films by students, at home, individually, with the possibility of reviewing them (reverse learning); posting the second test on the group created on Messenger, to check the students' level of knowledge after watching the film; discussion, in two online activities on the Zoom platform, by the teacher and students of the film topics; students playing the game created by the teacher with the Mentimeter tool; solving the third test.

The tasks of the three tests were read by the parents, and the students ticked the correct answers. The weight of the correct answers (33.87%) from the first test indicated the need to offer support from the teacher for students to understand the content of the film. The results (69.47%) of the test applied after watching the film indicated that students knew the contents presented in the films. The lower share of correct answers (58.45%) to the third test was explained by its administration in the evening and by the higher degree of difficulty of the items, compared to the second test. The study states that the teacher did not monitor the viewing of the film or the completion of the three tests, these activities being performed at home by students, therefore, the results obtained could be influenced by unknown factors. The authors of the study emphasize that, in order to obtain relevant data, students' assessment should be done in the presence of the teacher, in real time, online or face to face (Ilie et al., 2020a).

CONCLUSIONS

At the end of this study, we note that in Romania there are few studies on the use of film in education in general and on primary education, which shows the low interest of researchers in this subject, although communication and information technology is currently developing rapidly worldwide and there is a large supply of films available for free.

In most studies, little information is presented about the use of films for educational purposes and only seven of them described in detail research conducted in primary education on subjects in the field of natural

sciences. Because this research was conducted on small samples of participants, the results obtained cannot be generalized, but are useful to researchers and teachers who use films in the teaching process.

In order to correlate the results of this research with those carried out worldwide, the aim is to expand the study of literature on research conducted in other countries in primary education, in which films were used for educational purposes in the study of natural sciences.

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