

## The Concept of Re-addressing in Education and Film Research

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**ABSTRACT – The Concept of Re-addressing in Education and Film Research.** This article presents the theoretical bases and analytical developments of the concept of re-addressing for the research in the area of Education and Cinema. This concept refers to the mediations produced on an audiovisual feature to adapt it to teaching, and allows describing and analyzing modes of teaching in classes with audiovisual in order to identify prevailing and intervening aspects in teaching and learning conditions. We also present the most frequently found audiovisual re-addressing strategies, the modes of reading and spectatorial displacements in teaching, and the knowledge taken into account by teachers to re-address. Finally, we indicate contributions and potentialities of the concept for research.

**Keywords: Education and Cinema. Audiovisual. Reception Studies. Modes of Address. Re-Addressing.**

**RESUMO – O Conceito de Reendereço na Pesquisa sobre Educação e Cinema.** Este artigo apresenta bases teóricas e desdobramentos analíticos do conceito de reendereço para a pesquisa na área de Educação e Cinema. Este conceito se refere às mediações produzidas sobre uma obra audiovisual para adaptá-la ao ensino, e permite descrever e analisar modos de atuação docente em aulas com exibição audiovisual de forma a identificar aspectos preponderantes e intervenientes nas condições de ensino e aprendizagem. Apresentamos ainda as estratégias de reendereço audiovisual, os modos de leitura e deslocamentos espectatoriais mais frequentemente encontrados no ensino, e os saberes mobilizados pelos professores para reendereço. Por fim, indicamos contribuições e perspectivas do conceito para a pesquisa.

**Palavras-chave: Educação e Cinema. Audiovisual. Estudos de Recepção. Modos de Endereçamento. Reendereço.**

## Introduction

This article presents the main theoretical bases and analytical developments of a research concept that is still being developed and consolidated in the field of education research: *re-addressing*. In developing a theoretical-methodological approach to research that links Education and Cinema, we consider some of the various relevant elements that constitute points of convergence between the two areas of knowledge. From this research perspective, Reception Studies, brought closer to the field of Education, have presented themselves as a challenging field for the production of knowledge about teaching-learning situations in science and health with audiovisuals. Reception theory, for example, has favored an approach that considers the “spectatorial dimension” of teaching with audiovisuals, also illuminating the pole of reading and the position of the spectator, in this case the student, without disregarding other elements, such as the characteristics of the audiovisual text that is used as teaching material. By studying the readings produced by student-spectators in educational exhibition and reception situations, their positions in relation to, for example, the preferred meaning, i.e. the meaning idealized by the producers of the audiovisual work (Hall, 2003) and its addressing, i.e. the set of elements that indicate the place from which they want the film to be seen (Ellsworth, 2001), the aim is to identify and analyze relevant aspects for research into the educational use of audiovisuals. In this way, we are looking for a dialog that, in fact, addresses educational issues in the light of contributions from theoretical-methodological contributions from communication and audiovisual.

We have noticed that, when showing videos and films to teach science, teachers create ways of adapting these materials to their lessons and carry out various and varied actions that converge with these adaptations, such as simultaneous or preliminary explanations and editing passages. This issue of ways of appropriating material is related to the broader field of research into the interactions between teachers and the educational resources they have or choose to teach with. In a wide-ranging review of the literature on the use of educational resources, focusing in particular on their transformation and adaptation by teachers in the field of mathematics teaching, Pepin, Gueudet and Trouche (2013) report as a fundamental result of various studies the fact that the process of interpreting resources continues in the “use” that teachers make of them, as a continuous “design in use”. Brown (2009) considers that both teachers and resources are active players in an interactive relationship. When choosing to use certain educational resources, teachers interpret them and adapt, add, cut or modify certain parts to reconcile them with their own conceptions and objectives, and/or with the interests of their students.

In line with this perspective, the concept of audiovisual *re-addressing* seeks to address its process of interpretation and appropriation for teaching, taking into account the specific characteristics and material nature of audiovisuals. Like other educational materials,

such as textbooks, learning environments and *software*, audiovisuals are a widely used resource today, with more or less defined interfaces with curricular content. On the other hand, the relationships established between teacher, student and video are not of the same order as those established between these actors and other types of material. The showing of a film or video in the classroom potentially produces new contexts that stimulate developments in reading that are not necessarily expected in terms of the curriculum and the teacher's teaching objectives. Although the teacher's mediation in the use of educational materials has been shown to be a fundamental point to consider, according to the authors above, research and theoretical frameworks have failed to take into account the diversity of issues and relationships to be studied with regard to teacher-resource interaction (Pepin; Gueudet; Trouche, 2013).

Below we present some of the main concepts and theoretical contributions that support us in our approach to the re-addressing of films and videos in science and health classes. In summary, research using the concept of *re-addressing* allows us to describe and analyze the ways in which teachers act in classes with audiovisual displays, in order to identify which elements and aspects of these modes are preponderant and intervene in the conditions of teaching and learning. We are therefore affiliated with the understanding that teacher mediation produces ways of transforming the works, and that the spectator dimension and the active role of the students are the beacons and challenges. In addition, we believe that *re-addressing* can be identified in various aspects, such as the shifts found between the original address of a film, its purpose and initial context of circulation, and the new situation or mode of reading created for its exhibition (Odin, 2005) in the classroom. In the same way, it allows us to identify and analyze *re-addressing* strategies created by teachers, in order to understand how the study of these strategies can point to the conditioning, specificities and limits of teaching with audiovisual screenings.

## **Motivations for Building a Research Approach**

Over the last ten years in Brazil, the publication of research and studies on audiovisuals in science and health education has evolved into a regular and growing flow. This can be seen by comparing literature reviews on the subject in this period (Rezende Filho; Pereira; Vairo, 2011; Berk; Rocha, 2019; Freitas; Queirós; Lacerda, 2018; Silva; Ghidini, 2020). The production is also marked by great fragmentation of theoretical lineages, approaches and research interests. As for the issues and objectives of these studies, there is no less diversity, and it is notable that a large proportion is concerned with the inclusion of audiovisuals from the perspective of improving teaching.

Studies in the literature have often highlighted the various potentialities of audiovisuals in science teaching (Ferrés, 1996; Rosa, 2000; Freixo, 2002). These potentialities include facilitating learning, increasing student motivation to study and learn, contextualizing

teaching, visualizing concepts, promoting interdisciplinarity, and diversifying teaching resources with a consequent “break from routine”. There are studies that relate audiovisuals to other research topics, but almost always link them to a proposal for intervention or improvement in teaching. These include teacher training, teaching and learning, sociocultural approaches and the history and philosophy of science (Rezende Filho; Pereira; Vairo, 2011).

All of this production has been presented to the academic community mainly through studies on strategies and proposals for use, experience reports and theoretical essays. Often, studies that present experience reports on showing films and videos in teaching assume that they are intrinsically motivating for learning, without, however, presenting research results that clearly indicate this assumption (Rezende Filho, Pereira; Vairo, 2011). Many studies also focus on the content of audiovisual materials, mainly in terms of their scientific accuracy, but also in terms of their “usefulness” for illustrating or explaining concepts. There are articles (Silva; Ghidini, 2020; Vasconcelos; Arroio, 2012; Barroso; Borgo, 2010) that consider, at least implicitly, the training of science teachers for the use of audiovisual materials in the classroom to be deficient, and present themselves as contributions to solving these deficiencies (Rezende Filho, Pereira; Vairo, 2011).

A striking feature of much of the literature on audiovisual and science and health education is the centrality given to the study of a supposed improvement in learning in activities with video. The efficiency of these processes is generally inferred from students' positive responses to questionnaires about their perception of the process. Rather than questioning the methodological and analytical design of these studies, however, we are interested in understanding how they intend to isolate the “effects” of audiovisuals on learning, in processes that are composed, as we have seen, of various elements, and not just the audiovisual materials used. With regard to the theoretical contributions of these works, there is generally a lack of specific references from the areas of Communication, Cinema and Audiovisual, which indicates that they focus strictly on educational issues. Such references could help to identify communication aspects that are relevant to the study of educational processes.

Finally, we should understand that these studies are largely marked by a concern with the acceptance of audiovisuals as a legitimate teaching resource (Rezende Filho et al., 2015). This is certainly not an irrelevant point, since the idea that teaching with video is not teaching, or that “class with video is not class”, still persists in the school community. On the other side of the coin, this concern has led to efforts by various studies to encourage and facilitate the appropriation of these resources by schools (Anacleto, 2007; Rocha; Donato Jr.; Oliveira Jr.; Messeder, 2010; Dantas; Martins; Militão, 2011; Costa; Barros, 2014; Souza; Jesus; Andrade; Barros, 2014; Santos; Gebara, 2014; Santana Jr.; Farias, 2016; Teixeira; Xavier; Damasio, 2017; Rosa; Oliveira; Rocha, 2018), often affirming, albeit from inconclusive data,

their contribution to improving science and/or health learning, as indicated above (Rezende Filho et al., 2015).

Our perspective was built on a critical look at these approaches, motivated by the perception of their insufficiency, but also by the search to listen to and consider the arguments they put forward. Our objections were inspired by various ideas originating mainly in the work of the American anthropologist Sol Worth. This author (Worth, 1981b) questioned many of the studies on the advantages of using audiovisuals in educational contexts and their supposed roles. Worth points out that these roles are influenced by understandings derived from everyday uses of films as propaganda, entertainment and art, about the supposedly overestimated effects of these audiovisual productions on society. These influences have facilitated the production of beliefs that have become the assumptions of many studies carried out up to the date of publication of his latest work.

According to the author, the two recurring assumptions are the idea of a *universal language* conferred on films and videos and the supposed *psychological and social primacy* that images have over words because they are understood as a form of visual thought. The first assumption has a direct bearing on the supposed advantages of using films and videos as an educational resource, since it conceives of audiovisuals as a “universal language with an untapped potential to do what words fail to do, communicating in a multimodal, multi-sensory way, and for all ages and across different cultures”. Worth questions, with analyses stemming from his research, that people of all ages and cultures enjoy and understand films and videos in the same way, which is therefore an inconsistent assumption. The second assumption, characterized by the psychological and social primacy of films, assumes that they are a form of “visual thought” that is superior to words in its expressive capacity. An offshoot of these premises is the understanding that the audiovisual is the language of current generations, and that it will become the main one, socially and culturally, because of its supposed psychological primacy.

Certainly, films and videos can receive more attention from schools, educators and researchers. What is questioned are the assumptions underlying the arguments that claim to support greater permeability between cinema and school. The assumption of visual primacy, with its subordinate and uncritical filmic ideology, gives an unreasonable bias to research problems, teaching methods and curricula, as well as to educational theories and public policies. For Worth, it is not a question of stating that “the visual is psychologically, culturally and sensorially the main way of experiencing and knowing the world, but rather that the visual mode of communication, along with other modes, allows us to understand, control, order and thus articulate the world and our experiences” (Worth, 1981b, p. 133). Furthermore, understanding how the film works and affects people inside or outside the classroom is quite difficult to determine (Worth, 1981b), because the codes and rules present in the culture of individuals are always interfering in the reconstruction of a new codification

of what has been observed, producing different readings and meanings. In some cases, these readings run counter to the message originally intended by the producer. This interferes with the students' production of meanings about a given film, relatively escaping the meanings intended by its producers, which often leads to students' resistance to producing these meanings expected by the school or society. For Worth (1981a), a film has no meaning in itself, but only acquires meaning in its relationship with a subject who perceives it. The construction of the text by this viewer is made under the pressure of the various determinations that surround them, without necessarily being aware of it. This subject is neither free nor individual, as they share certain impositions with others.

### **Initial Framework for a Theory of Re-addressing**

From this perception, we sought to build a theoretical and analytical framework that would take into account the perspective of our studies, that is, to consider the specificities of the audiovisual as a semiotic and educational resource. We therefore set out to define a theoretical- empirical framework that could be applied to concrete teaching situations using audiovisuals. This framework is made up of the relationships between three main elements: the audiovisual work, as a complete text, but not closed in on itself; the real and concrete contexts in which screenings take place; and the relationships between reception and spectators. This framework derives mainly from the contributions of Cultural Studies, especially those from the Birmingham School, and the Spectator Theory of Cinema. According to Schröder *et al.* (2003), Cultural Studies considers the social and everyday dimension in which interacting subjects jointly constitute the meanings of their experiences. Thus, it is understood that subjects have socio- cultural resources that allow them to create their own meanings for their experiences, thus articulating or even challenging the determining/hegemonic social structure.

In the context of this framework, we initially mobilized the constructs of Stuart Hall (2003), the Encoding/Decoding Model, the concept of Modes of Addressing as developed by Elizabeth Ellsworth (2001), and finally, as a result of the studies carried out on the latter, the concept of *re-addressing*. Based on the concept of subjects as active producers of culture, Hall's Encoding/Decoding Model seeks to understand the relationships of creation and negotiation of meanings involved in the production and reception of audiovisuals. It is understood that there is no guarantee that viewers will necessarily produce the meanings expected by the producers of a given message. For Hall, these subjects, in their activity and with their own cultural repertoires, knowledge and experience, can mobilize them differently from those considered by the producers when producing and broadcasting an audiovisual work.

In turn, the concept of Modes of Address is defined by Elizabeth Ellsworth (2001, p. 17) based on issues identified between theories of



cinema and education. According to Ellsworth (2001), *addressing* deals with the relationship between the text of a film and the spectator's experience, in other words, processes that seek to "summon the spectator to a position from which he or she must read the film". It is important to recognize that producers, when making a film, aim at and imagine a certain audience, and use expressive, dramaturgical and aesthetic resources that seem appropriate or attractive to that audience.

However, producers are generally far removed from their real viewers and have limited knowledge about them. Their assumptions may be wrong, or their movie may simply not be seen by the audience they were aiming for. Therefore, the audience may not be exactly as imagined, or may in fact be different (Rezende Filho et al., 2019). The distances or "disagreements" between producers and audiences can be of various kinds: economic, social, cultural, religious, racial and gender. They can also result in reading "failures" or resistance, when they imply forms of inclusion or exclusion of certain audiences or layers of the public instead of others.

Based on this set of questions and understandings, the results of studies on the dynamics of production and reception led us to believe that a third element, in addition to the sender and receiver, could interfere in this communicational dynamic, altering the original addressing and enhancing meanings through the selection of works, adjustments in their display, and even through the selection of contexts and intertexts. Consequently, we borrowed the word *addressing* from Ellsworth and named this mediating action of the teacher as audio-visual re-addressing.

Assuming that audiovisual works are always addressed, their use in contexts and for purposes other than those for which they were produced, such as in the school space, potentially involves some kind of adaptation, and are therefore new addresses produced from or on the conditions established by an "original addressing" (Guimarães; Rezende, 2018). However, it is not necessarily different from the original addressing, since it can only seek to delimit or restrict the spectrum of groups to which the film is addressed, potential contexts of use and universe of possible readings for the work. *Re-addressing* is a type of mediation that occurs when a broadcaster adapts an audiovisual work intended for a certain audience, produced for a certain purpose, according to their objectives and readings. When re-addressing a video or film, the mediator carries out actions that seek, in one way or another, to intervene in the reception and reading of that work. They can reinforce or challenge some of its information or any of its characteristics, be they aesthetic, narrative, content, etc. This mediation, therefore, is an action that can affect not only the meaning, but also the way the information is presented, the story is narrated, or the characters represented, among many other aspects.

In addition, *re-addressing* is also closely related to the concept of Reading Mode, a theoretical notion formulated within the frame-

work of Cinema Semiopragmatics by Roger Odin. According to Odin (2005), the same viewer can produce different readings of the same movie, depending on the environment in which it is shown and their reading intentions and objectives. A screening at school, among friends at home or at the cinema will probably result in different readings. Certainly, a film already indicates in its text the way it “wants to be read” (the aesthetic choices, the film genre, the addressing, etc.), but there are also external conditioning factors that interfere with the communication process and restrict the viewer’s ability to produce meaning freely and randomly (Odin, 2005, p. 45). Thus, meaning is not inherent to the work, even if it is not completely open. The production of meaning also depends on how the reading objectives are indicated in its context or viewing situation.

Odin identified nine reading modes that exemplify how the same film or video can be read differently according to the determinations and orientations of the viewing situation. Among these modes, we find the *documentary* mode, which is watched to learn about “the reality of things in the world”, the *fictionalizing* mode, which is characterized by the aim of vibrating to the rhythm of the events in the fiction, and the *private* mode, in which the viewers’ personal experiences are summoned in the production of meaning (Odin, 2005). The classroom is precisely a space with the capacity to produce its own way of reading, due to its strong institutionality and the mediations that take place there, generally produced by the teacher, but not only by him. Through this institutionality and these mediations, objectives and reading routes are established that are shared by a specific group. Odin (2005, p. 45) says that “the school is a relatively imposing institutional structure, which forces us to read films in order to get information from them”. The school use of audiovisuals therefore operates under different conditions to those offered, for example, by the movie theater, a space socially consecrated to leisure and relaxation. As an important example of these transpositions of exhibition spaces, we have the relatively frequent use of a whole universe of commercial productions - films, series, television programs - to teach science at school.

We are especially interested in studying, in the use of these materials at school, the shifts in the students’ spectatorship that can be produced, in other words, their potential to “change their attitude” towards the work used, even if they are within the spectrum planned by the address. We consider this research to be important within the general framework of research into Education and Cinema, because these shifts can act in different ways on the teaching-learning process and on the relationship that is built with films. When showing a science fiction movie, for example, the teacher may be interested in showing certain aspects to which their students would not give relevance in another context. It is likely, then, that these students, as the spectators they are, will stop behaving as they would in a movie theater, that they will put the expectations of entertainment they might



have in the background, and dedicate themselves to taking the place of a student seeking to learn science (Guimarães; Rezende, 2018).

Thus, re-addressing also implies building a specific context for (re)watching a movie in the classroom, considering educational purposes such as identifying, understanding or deepening the scientific concepts that are more or less evident in the movie. Therefore, the concept of *re-addressing* aims to specifically study the shifts in spectatorship produced by the teaching-learning situation as conditioning and/or constitutive of that situation (Rezende et al., 2019).

The notion of *re-addressing*, as we have formulated it for research in the area of Education and Cinema, is largely convergent with that found in Literature Theory, referring in this field to “the publication of the same work (or a retelling of it) aimed at an audience different from that of the founding text”, a children's audience, for example, where “retelling” refers to the “appropriation of a traditional tale in the form of parody, paraphrase or other intertextual or interdiscursive updating” (Corrêa, 2010, p. 247). Children's literature studies approach the concept of *re-addressing* when dealing with the editorial phenomenon of adapting adult literary- poetic production for children's audiences, in which classic texts that are already known are reissued, in their entirety or in fragments, with a new “packaging”, re-addressed to children or young people (Ceccantini; Aguiar, 2012, p. 309). For these studies, *re-addressing* deals with the adaptation of literary works, which were originally created with adults as the main interlocutors, for children and young readers.

Literary re-addressing, like audiovisual re-addressing, also implies an attempt to mediate the text initially created for one audience to another (Dias; Souza, 2016), also producing some kind of displacement of meaning and the reader.

Among the most important convergent aspects between re-addressing in Literature and Cinema in education is the premise that re-addressings need to be guided by conceptions of who the reader is and who the spectator is. In addition, a relevant converging premise is the fact that the construction of *re-addressing* is based on specific strategies that seek to produce identification with the audience and with the target audience. As for the first point, according to the authors consulted, the production of re-addressed texts, adapted from existing canonical works, for example, is based on various assumptions about the reading capacity of the re-addressed audience (children and adolescents): “low concentration capacity, linguistic and textual skills still under construction, limited world knowledge” (Dias; Souza, 2016, p.65). According to Beltramin and Zappone (2018), the intention is to make the text easier to understand, adapting it for audiences who are not very familiar with literary, poetic and/or theatrical texts. “In the process of adaptation, a narrative posture is assumed of guiding, guiding the reader and often even manipulating reception, through an attempt to control the reader's construction of the text's meaning” (Beltramin; Zappone, 2018).

With regard to the second point, the need to build *re-addressing* strategies, studies of Children's Literature have been concerned with identifying a series of strategies which, in the adaptation of works, are designed to produce identification with the young reader. The “re-addressed format” of a classic work for children and young people is often characterized by a set of elements that are almost always present in the works, such as: a colorful cover; little text per page and short texts, seeking a fluent language; association between text and image, with many illustrations and paratexts, such as the author's biography, glossaries (to clarify words that could truncate the reading), notes and explanatory boxes; point of view and “themes conducive” to the child reader, specifically legends, animals, children's lives, children as characters; and also literary resources with the potential to attract the young reader, particularly narrativity and musicality (Cecantini; Aguiar, 2012). The authors agree that “design is used as a way of guiding readers according to preconceived intentions, which makes the editor a reading mediator [...], as the resources used provide instructions on how to read and offer each reader the possibility of entering the text or going back” (Dias; Souza, 2016).

Between literature and cinema, therefore, there are several points of convergence in the conceptualization of *re-addressing*, especially the fact that in both cases it is a question of producing a mediation for a certain purpose. We are especially interested in the fact that, even in literature, authors think they can analyze the construction of a *re-addressing* by connecting assumptions about the characteristics, difficulties and conditions of the intended readers (spectators) and the formal strategies used to make the work reach this audience satisfactorily, in other words, fulfilling the publishers' objectives. We understand that there are analogies between these strategies in publishing and those that teachers use in the classroom when they mediate the screening of a movie, for example.

In the following sections, and in parallel to what has been discussed above, especially in the case of “*re-addressed* literature”, we present a summary of the most common *re-addressing* strategies found in teaching science and health with audiovisuals, the modes of reading and displacements of the spectator most frequently promoted in class and, finally, the knowledge that teachers mobilize to produce the *re-addressing* of audiovisual works in their classes.

## Re-addressing strategies

We defined the main types or strategies of *re-addressing* by the actions that delineate them, but we also sought to characterize them in terms of their functions, the evidence that indicates them and the results they produced. In previous studies (Santos; Rezende Filho, 2021; Santos; Rezende Filho, 2022), the main *re-addressing* strategies found were: *coviewing*, intertextuality, adaptations to the audiovisual works used (cuts, for example), and interference in the way the works are shown (full showing, interruption, repetition of scenes).

*Coviewing* has been shown to be the most frequent *re-addressing* strategy. According to Kirkorian, Wartella and Anderson (2008), *coviewing* can be observed, for example, when children watch television programs in the company of their parents or guardians. During the viewing, this mediator interacts with the child by commenting on what they see, generally to control, stimulate and accompany their production of meaning, in a similar vein to what we presented above about re-rendered literary works. The main hallmark of *coviewing* in class is the teacher's speech before, during or after the audiovisual screening. Among its functions, we find directing and/or modifying the meanings produced by the students (control of polysemy), preparing the students to see strong images (human organs, animal slaughter), reducing or controlling resistance to features of the videos, and drawing the students' attention to certain aspects of the work shown. The most frequent results were the apparent overcoming of student resistance to certain characteristics of the material, the convergence of student understanding with the teacher's objectives, the acceptance by students of the place of spectator that the teacher expects them to occupy, and the delimitation and selection of the content of the works according to the perspective of the subject or class.

*Intertextuality*, defined as the insertion of complementary conceptual information through other texts, audiovisual or not (Werner, 2004), has also been frequent. We can see that its main functions are to promote associations between the understanding of the texts used, so that one complements the other; to direct students towards the objectives of the lesson, avoiding the possibilities of dispersion brought about by the audiovisual text; and to help "didacticize" the audiovisual, encouraging it to be read "in the light" of other texts (generally more conceptual), rather than randomly or freely. Among the results, the students' readings appear to be more focused on the objectives of the lesson, and there is, in general, a recognition by the students of the appropriate pedagogical use of films and videos as pertinent and appropriate teaching materials.

The main adaptations made to audiovisual works are cuts. Among their functions, we find: adjusting the length of the video to the available class time and excluding content that could lead to unwanted interpretations or reading paths, that would not be of interest to the class, or that would not add anything to the themes or concepts studied. As a result, we were able to obtain readings and discussions that were in fact more focused on the objectives of the lesson.

Finally, the interferences in the way the works were shown showed that the complete screening of a feature film sought to contextualize an issue in a real and concrete situation, and relate the teaching of a set of concepts to other disciplines or themes, highlighting their real applications. Although it is known that there is a limited amount of time to show long films in the classroom (Barros; Girasole; Zanella, 2013), we understand that their excessive fragmentation can lead to a decontextualization of the film's plot and the characteriza-

tion of the characters (Guimarães; Rezende, 2018). The option to fragment the work can lead to students losing interest in the audiovisual, in other words, reducing the empathy it provokes through its narrative action, the emotions it provokes and the characters, which is precisely what literature has valued in terms of its attractiveness for teaching science (Oliveira *et al.* 2012; Freitas; Oliveira, 2015; Almeida; Castro; Cavalcanti, 2014). In addition, in general, the complete screening of the film contributes to characterizing the lesson as an interdisciplinary proposal for a sociocultural approach to the sciences in their relationship with social, political and environmental issues (Santos; Rezende Filho; Mello, 2020).

### **Modes of Reading and Spectatorial Shifts**

*Re-addressing* actions in general have a clear relationship with the ways of reading promoted by teachers. Intervention in reading modes is an integral part of the actions of most teachers who show films and videos in class in the studies we have carried out. These modes encourage, on the one hand, that students' attention is focused on some aspects of the video's content rather than others, and on the other hand, an environment for discussion and debate that extends the content strictly dealt with in class.

As for the modes of reading encouraged or proposed by teachers, the most frequent, because it is obviously more related to the *modus operandi* of school and science teaching, is the *documentary* mode. In the case of the *re-addressing* of feature-length commercial films, the *re-addressings* constructed seek to reduce the predominance of the *fictionalizing* mode of reading, stimulated by this type of work, and promote the *documentary* mode of reading.

In turn, the issue of spectatorial shifts in science classes has presented itself in two main trends. The first can be seen when the teacher shows a work that was not produced for educational purposes, or is educational, but for another level of teaching/objective. In some of the cases studied (Dissat; Rezende Filho, 2019; Santos; Rezende Filho; Mello, 2020), we can say that the *re-addressing* that was constructed took into account the need to move the student from a position of ordinary spectator, as stimulated by the way the films were addressed, to the position of "science learner".

The second trend was more common when the audiovisual works used were more related to teaching, either because they were more loaded with information or because they directly addressed concepts related to the content of the lesson or the discussions they were intended to undertake, such as news reports and documentaries. In this trend, we noticed a convergence between the original addressing and the *re-addressings*, which shows us that the *re-addressing* was constructed in such a way as to "take advantage" or accentuate aspects of the original addressing (Rezende et al., 2019).

Since students tend to maintain an autonomous posture of meaning production during viewing, they need to realize that the au-

audiovisual educational material concerns them, and concerns the teaching-learning processes in which they participate, in order to give legitimacy to teaching strategies that involve and include films and videos. It is on this point that teachers' concerns about promoting a specific way of reading and/or a spectatorial shift in the student come into play most strongly.

### **Re-addressing know-how**

The *re-addressing* strategies produced by the teachers, as well as the construction of ways of reading and shifting, are supported by various types of knowledge that the teachers mobilized in order to prepare and carry out the audiovisual lessons. Among this knowledge are those related to the subject taught and the curriculum, those related to the students and also to the audiovisual works.

Knowledge related to the subjects they teach forms an important basis for teachers to be able to identify content related to the curriculum and teaching objectives in the selected audiovisual works. Knowledge of the general curricular guidelines and the schools' Political-Pedagogical Projects is also an intervening knowledge in the production of *re-addressing*.

As for the knowledge related to the students, we would highlight that which concerns their tastes, preferences and interests, whether in terms of topics that attract their attention (drugs, diets, the environment), the conditions for their reception (duration, associated dynamics such as debate) and aesthetic preferences. In other words, knowledge about the cultural and/or didactic references that can attract students' interest and attention. No less important were those that referred to the students' level of knowledge or maturity (Rezende et al., 2019).

With regard to knowledge related to audiovisual works, the main one concerns teachers' ability to identify the address of the films and videos shown, at least in general terms. We assume that this knowledge is probably informal or intuitive, since in general teachers do not report having received specific training on the subject. However, this ability is important because it guides the production of *re-addressing*, and because the strategies needed to communicate with students are built or designed around this perception. The identification of the address by the teachers seems fundamental to the appropriation of the works, since without understanding how the original addresses operate, it seems less likely that coherent adaptations will be constructed that are consistent with the teaching objectives (Rezende et al., 2019).

The teaching knowledge involved in and constitutive of audiovisual practices shows that teachers are attentive to preparing the exhibition situation, defining the objectives and highlighting the relationship with the content to be taught/learned, mobilizing mainly knowledge about the content and the subject they teach. Although it is rare for teachers to show the interference of formally acquired specific

knowledge about cinema and audiovisuals in their practices, it is likely that tacit or experiential knowledge about these, acquired over the course of an individual's history as a moviegoer, will support teachers in the construction of *re-addressing* strategies. The articulation of this body of knowledge is precisely what indicates that the appropriation of audiovisual works for the teaching of science and health constitute practices of curriculum construction by teachers. This perspective is broadly in line with what Pepin, Gueudet and Trouche (2013) maintain about the active and interactive nature of teachers' work with educational resources. For these authors, teachers draw on their knowledge to evaluate, select, adapt and make sense of the educational resources they use, in such a way that it can be said that these both shape and are shaped by teachers' work.

### Final considerations

The study of audiovisual re-addressings is a new topic in Education and Cinema research, but because of what we've said above, we believe that it could become a promising research perspective in Education. As we have seen, Children's Literature Studies in Brazil have already come a long way in producing knowledge about mediation practices and the adaptation of literary cultural artifacts aimed at training new readers. We think that something similar can happen in the field of Education and Cinema, since the concept of *re-addressing* seems to us to be rich in articulations for identifying and analyzing the most relevant educational problems, such as those involving teacher training, teaching knowledge and the curriculum.

Furthermore, with specific regard to the development and production of knowledge on the relationship between Education and Cinema, or on the use of videos in teaching, the perspective of *re-addressing* studies seems to allow us to advance on issues related to specifically audiovisual communicational aspects of education, by aligning theoretical references from film theory and reception theory with the problems of this area. Thus, in relation to the research literature in the area of science and health education, *re-addressing* studies have allowed us to review how much we can actually assume that showing films and videos in education is automatically and necessarily motivating, and how much the audiovisual, as an educational technology, can be isolated as a source of these effects that may occur in teaching and learning with films and videos. *Re-addressing* studies show that, depending on factors such as the type of audiovisual work, its duration, the activity in which it is inserted and the teacher's mediation, the exhibition can provoke resistance that leads, paradoxically, to the failure of the activity and, precisely, to the demotivation of the students. Addressing "errors", for example, can be frequent if the teacher does not actively consider that the various types of audiovisual works are not equivalent, and that not all of them serve the same purposes, regardless of how they are evaluated. Furthermore, only in certain specific situations do they arrive in the classroom "ready" to



be displayed, that is, they do not require preparation/intervention by the teacher for their insertion as a curricular teaching resource.

As seen above, the contributions of re-addressing studies in education are mainly located in the way certain educational issues can be (re)analyzed and (re)studied from the point of view of spectatorship. Thus, the construction, for example, of a place for the student-spectator and the stimulation of certain intentions or modes of reading instead of others intervene on the students' perspective of the knowledge worked on in the classroom. Furthermore, these studies confirm that teachers' knowledge about the use of audiovisuals, even if sometimes fragmented, is important in their appropriation for educational purposes and for the construction of *re-addressing* strategies. Different audiovisual works require different knowledge and strategies on the part of the teacher. We can infer, then, that knowing these differences has potential implications for teacher training and the educational use of audiovisuals, in the sense that knowledge about the concepts and dynamics that characterize educational exhibition can be important for teachers to improve their practices with audiovisuals. On the other hand, the literature points out that teachers learn through the use of educational resources and that, at the same time, their regular, consistent and coherent appropriation can contribute to teacher training and stimulate changes in teachers' conceptions and practices (Pepin; Gueudet; Trouche, 2013).

Studies on *re-addressing* can contribute to the overall picture of the prospects for teacher training at the moment. However, more research on this point is needed, as the available data is still limited to point to correlations between teacher training and agency. Even so, we argue that the concept of *re-addressing* has its own consistency and coherence in different fields of knowledge, and is therefore a concept that is already quite mature for research, and potentially offers relevant contributions to research into the relationship between Education and Cinema.

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