

Images in Educational Textbooks and Educational Audiovisual Media

Archontia Foutsitzi

Laboratory Teaching Staff, Department of Primary Level Education,
Democritus University of Thrace, Greece

Abstract

The role and contribution of images to the educational process has been pointed out by many researchers. Images are a source of information and for this reason their use in education is both important and valuable. Their enduring nature is demonstrated by their long-lasting presence in educational textbooks at every level of education. The introduction of new audiovisual media into the practice of teaching has resulted in a change in the traditional way in which they appear and are displayed. However, the factor which has remained stable and unaltered is the benefit which results from their being used.

Keywords: image, illustration of educational textbooks, images in audiovisual media.

Introduction

The question of images and the role they play in teaching and learning has been and still is a major concern for both researchers as well as active teachers. In the relevant literature, both in Greek and foreign languages, there have been, especially over the last few decades, many works which refer to the illustration of audiovisual teaching materials (Kantartzi, 2002; Demetriadou, 2007; Syriou, Katsantoni&Loukeri, 2015) and to images in audiovisual teaching materials. The reason being that the role which images play in the educational process is very important. For many decades the images which teachers used when teaching their pupils mainly came from school textbooks. Nowadays this has changed. The new technological media constitute an integral part of the learning process and their use helps teachers to provide their pupils with abundant visual material and through this to form new visual representations. The ultimate goal of this activity is so that the teaching of the lessons is more graphic and attractive. When the presentation of new knowledge is not solely restricted to verbal descriptions by the teacher but is also accompanied by plenty of other stimuli, mainly visual stimuli, then the new knowledge becomes more complete and the learning is more efficient.

Images in educational textbooks

The first books to host images were manuscripts, the so-called codexes. In the intervening centuries, from the time of manuscript books until today, a lot of things have changed. Images, however, continue to be found in educational textbooks for every level of education. Their value remains timeless, because the benefits which pupils derive from their use are many (Taratori-Tsalkatidou, 2005).

All images are *visual representations*. By the term *visual representations* we mean “any representation apart from the text of unities, i.e. images, diagrams or other schematic depictions” (Christodoulou, Spiliotopoulou & Karatrantou, 2005). Not included in the above term are the boxes which contain texts and are set out in the margins of the normal course of the texts in a book.

In the newer school textbooks visual representations are very preponderant in comparison to the past. From just one simple glance one can easily ascertain that the current form of educational textbooks bears no relation to the older ones issued some decades ago. In books today the proportion of images in relation to the text is much greater (Kress & Van Leeuwen, 2010). Nowadays images do not simply represent, or just repeat everything that has been said in the text. On the contrary, they carry out extra functions: they provide didactic and communicative dimensions, apart from their representational content.

The opinions of experts diverge regarding the presence of images in educational textbooks. According to the first opinion, images explain the text next to which they have been placed. In other words, images give information which completes the meaning of the written word, because they are explanatory and clarificatory by nature. According to the second opinion, images are decorative and artistic items which accompany a text and in essence do not contribute anything more than pleasure and enjoyment (Kantartzi, 2002). Linked to the above is the question: to what extent, ultimately, do images contribute to the understanding of each conceptual unit to which they refer? Because, according to critics, the various categories of photographs, for example, which are put into many school textbooks do not contribute at all to the understanding of the language content. Or, in other cases, the new information which they present is placed outside of the text. For this reason the visual education by the writers and illustrators of school textbooks is an substantial feature, which should be seriously taken into account when a school's curriculum is being organised and structured (Arnheim, 2005).

The influence exercised by illustrations is very considerable. One of their particular features is the large number of messages they convey and the alternative way in which their messages are perceived by the recipients. The messages coming from an image are different for every single one of the recipients, because each of them can ascribe to them his own personal meaning (Marantz & Marantz, 1988). Illustration

contributes significantly to the development of the individual, because the eye is the most important input of messages to the brain (Kantartzi, 2002).

Images give a text a pedagogical character, especially when they are aimed at small children. For this reason the illustration of school textbooks has been deemed to be essential from a very early age, in order to increase their attractiveness. Every year a large number of illustrated books are released. Thanks to these book releases children's illustrated books have flourished the most in comparison with the rest. The reason why this is happening is the significant improvement not only in their contents, but also in their pictorial appearance.

Images come first nowadays. School textbooks are filled with images (Palikidis, 2009). The development of printing and of computerised systems ushered in new printing techniques, significantly improving the look of educational textbooks. Illustrated educational course books are still being produced and released just as other books, through images, are being transformed by organising their development as an art form from now on (Mastrothanasis & Kaplani, 2006).

Images in educational audiovisual media

Referring to the images in audiovisual teaching materials, we must provide one essential clarification: the perception that many people have about these images is of a static representation of an object. However, in the more important audiovisual teaching materials (cinema, television) the images are animated. So there are three approaches to the concept of images in these materials.

The first approach relates to the identification of audiovisual images with the audiovisual application as a whole. Thus, in the case of cinema, the audiovisual images can coincide with the entire film being shown and in the case of television they can concern the entire broadcast. The second approach concerns the viewing of excerpts, which is carried out selectively. In this case the teacher edits the content of the images so that viewing them can be adapted to the individual educational needs. In the third approach, one single image from the audiovisual medium is isolated and reference is made to it alone.

Of these three alternative approaches, the first is the one where the use of the medium is prevalent in the educational approach. In this case the pedagogical value of the medium depends on the content and on how closely it relates to the subject being taught. Cinema and television are applications of this type. However, films or broadcasts not made for educational purposes but whose content is useful in education cannot be excluded. The only disadvantage in this case is where the image or broadcast being shown contains superfluous information and messages which have no connection with the subject being taught.

In the second case the traditional didactic approach prevails and the medium performs and plays a complementary role in the educational process. The lesson can

become more interesting and the teaching objectives be more easily achieved. The teacher must have the time and special skills in order to edit the images, whilst the possibility of structuring the knowledge anticipated by the use of the audiovisual medium is lost to a great extent. Lastly, the application of the third approach in the educational process is virtually identical with that of images in school textbooks or those which accompany a text. The only difference is that if the pupil is familiar with the visual object of the image chosen, the medium may be more attractive and it may be easier to understand its content.

The rapid developments in the audiovisual technology sector have increased the frequency of the use of images in the practice of teaching and have enriched the form and the means by which these are shown. Apart from the radio, in most audiovisual media the emphasis is still on images, which, however, have ceased to be the only factor providing stimulation. This is happening because in complex media images are accompanied by sound. The sound, which replaces the spoken word, creates auditory stimuli, which, in conjunction with the visual stimuli, provide better results. In this case the images shown are no longer static but are animated.

One example of an audiovisual medium where animated images prevail is the cinema. In theory, the chance to use it in the educational process could act as a catalyst. Cuban (1986) said that Edison, as early as 1922, had spoken prophetically about the cinema, maintaining that it was expected to bring about “a revolution in the education system, since within a few years it would replace books”. This, however, never occurred. Apparent reasons for this are the shortage of facilities in schools, the lack of expertise on the part of the teachers as well as the inability to change the traditional culture in education, whereby an audiovisual medium comes in order to support the existing educational process and not in order to overthrow it (Koronaïou, 2001).

However, we should point out that successful teaching experiments have been carried out using cinematographic films, which emphasise the role of cinematographic images. Indicative of this trend is the use of the film “The Prestige” in the teaching of Physics, Art and the Principles of the Economy (Kabouropoulou, Fokiali & Hadzigeorgiou, 2011; Hatdziggeorgiou, Fokiali, & Kabouropoulou, 2012). According to the authors, the contribution of cinematographic images aided the understanding of natural phenomena (electricity in particular), economic phenomena (competition, oligopoly), the development of the imagination and the forming of positive attitudes towards art. At the same time, it gave rise to the development of dialogue, reasoning and critical thought. On the whole, however, the use of cinematographic films in the classroom is very limited. Vrasidas, Zembylas & Petrou (2005), referring to the research results concerning the opinions of nursery school teachers about the use of the cinema in school, support the limited use of this medium.

Regarding televisual images, their use in education is also limited. Teachers maintain a rather negative attitude towards them, even if there have been recent results (Linebarger, 2011), which are positive, especially with respect to their contribution towards the understanding of concepts and phenomena. Buckingham (1990), referring to the importance of animated images, maintains that children come to school already having a knowledge of these media, which, however, they have acquired outside of school. According to this opinion, the teacher can help the children to build up new data and information on top of the existing knowledge more easily than if they were starting from an initial baseline. This helps in deepening and understanding each subject better.

Finally, animated images, in spite of the criticism occasionally made of their role, will have to be reviewed from two perspectives: The first concerns the possibility which they provide of bridging the link between the knowledge acquired at home and that at school, using the former in support of the latter. The second concerns the opportunity within schools which is now available to both the teacher and the pupils in a class to produce animated images by using simple applications.

In lieu of an epilogue

The images which are shown via educational textbooks require a thorough and in-depth empirical investigation. There are authors who contend that those book editions which do not contain any illustrations are incomplete. Because, as they maintain, illustrations, apart from their decorative and aesthetic nature, work in addition to the information and the meanings contained within a text. Of course, the interpretation of an image depends on several factors, which are directly related to each individual's level of knowledge, culture, experiences and know-how. Every reader interprets and deciphers what he sees in his own way, very often giving other interpretations apart from the ones intended by the author or the illustrator of the book.

The images which are shown via the new technological media and which are used in the pupils' tuition are highly realistic, graphic and diverse. The class teacher can choose and show to his pupils, depending on the circumstances, the appropriate visual material required for him to teach his lesson. This material can sometimes be derived from static and sometimes from animated images. It can, in other words, involve the simple presentation of an image with the students being asked to comment on and interpret the information it portrays. It can, however, involve the presentation of a video or the showing of extracts from a film or a documentary. The above activities are the responsibility of each teacher. He, having considered and assessed the expected outcome, decides which of these activities to choose each time.

Bibliography

- [1] Arnheim, R. (2005). *Art and visual perception. The psychology of the creative vision*. Athens: Themelio.
- [2] Buckingham, D. (1990). Making it explicit: towards a theory of media learning. In: D. Buckingham (Eds.) *Watching Media Learning: Making Sense of Media Education*. London: Falmer Press.
- [3] Christodoulou, D., Spiliotopoulou, B. & Karatrantou, A. (2005). The Illustration of Schoolbooks for the Internet and the Pedagogical Relationship with the Pupils. In: A. Tzimoyiannis (Eds.) *Proceedings of the 3rd Panhellenic Conference "Computer Science Education"*. Corinth: 7-9/10.
- [4] Cuban, L. (1986). *Teachers and machines. The classroom use of technology since 1920*. New York: Teachers College Press.
- [5] Demetriadou, K. (2007). The Image as a context for language teaching. The case of the textbooks for the "The Programme for the Education of Muslim Children" In: K. Dinas & A. Hatzipanayiotidi (Eds.) *The Greek language as a second/foreign language. Research, Teaching, Learning*. Thessaloniki: University Studio Press.
- [6] Hadzigeorgiou, Y., Fokiali, P. & Kampouroupoulou, M. (2012). Thinking about Creativity in Science Education. *Creative Education*, 3 (5), 603-611.
- [7] Kampouroupoulou, M., Fokiali, P. & Hadzigeorgiou, Y. (2011). Using a feature film to integrate art, science and economics. In: A. Karpati & E. Gaul (Eds.) *Proceedings of the 33rd InSEA World Congress: Art, Space, Education*. Budapest: 26/6-1st/7.
- [8] Kantartzi, E. (2002). *Historical Background of the Illustration of Children's and School Books*. Thessaloniki: Kyriakidis Brothers Publishing House S.A.
- [9] Koronaiou, A. (2001). *Educating outside of school. The contribution of audiovisual media and of the new technologies*. Athens: Metaichmio.
- [10] Kress, G. & Leeuwen, T. (2010). *The reading of images. The grammar of visual design*. Athens: Epikentro.
- [11] Linebarger, D. L. (2011). Teaching with Television: New Evidence Supports an Old Medium. *Phi Delta Kappan*, 93 (3), 62-65.
- [12] Marantz, S. & Marantz, K. (1988). *The Art of Children's Picture Books*. New York, London: Garland.
- [13] Mastrothanasis, K. & Kaplani, P. (2006). Humour in illustrated books. *Virtual School, The science of Education Online*, 3(3). Available in: <http://www.auth.gr/virtualschool/3.3/Praxis/MastrothanassisKaplaniHumor>.
- [14] Palikidis, A. (2009). *The role of images in school History textbooks in Secondary Education (1950-2002). Didactic, ideological and aesthetic function of images*. Thessaloniki: Kyriakidis Brothers Publishing House S.A.

- [15] Syriou, I., Katsantoni, S. & Loukeri, P. I. (2015). Criteria for the quality assessment of schoolbooks. *Review of Educational-Scientific Affairs*, 7, 130-145.
- [16] Taratori-Tsalkatidou, E. (2005). *Primary School Lesson Planning*. Thessaloniki: Kyriakidis Brothers Publishing House S.A.
- [17] Vrasidas, C., Zembylas, M. & Petrou, A. (2005). Contemporary pedagogical models and the role of educational technology. In: S. Retalis (Eds.) *Advanced Internet Technologies in the Service of Learning*. Athens: Kastaniotis.