Developing children's critical thinking through wordless book

Desarrollar el pensamiento crítico de los niños a través de libros sin palabras

Desenvolupar el pensament crític dels nens a través d'un llibre sense paraules

Panayiota Mike. University of Thessaly, Greece, pmike@uth.gr.

https://orcid.org/0000-0002-8931-1678

Tasoula Tsilimeni. University of Thessaly, Greece, tsilimeni@uth.gr.

https://orcid.org/0000-0003-0707-9818

Abstract

In wordless book the text is absent and the weight of the narrative has only the images (Arizpe, 2013; Gibson, 2016). In the classroom, wordless books can be used by small groups of students or individual students, who are encouraged to make suggestions about the content of each picture in the book. It is a complex process that requires the development of children's critical thinking and consequently the activation of a number of cognitive skills, such as processing and analysis, formulation of assumptions, reasoning, conclusion and evaluation (Facione, 1990c, 2000; Facione & Facione, 1992, 1994, 2007; Facione, Facione & Giancarlo, 1997; Facione, Giancarlo, Facione, & Gainen, 1995; Wason-Ellam, 1989). This article suggests ways teachers use wordless books in order to develop First Grade students' critical thinking skills and expand their vocabulary.

Keywords: wordless book, critical thinking, vocabulary

Resumen

En el libro sin palabras el texto está ausente y el peso de la narración sólo tiene las imágenes (Arizpe, 2013; Gibson, 2016). En el aula, los libros sin palabras pueden ser utilizados por pequeños grupos de estudiantes o estudiantes individuales, a quienes se les anima a hacer sugerencias sobre el contenido de cada imagen en el libro. Es un proceso complejo que requiere el desarrollo del pensamiento crítico de los niños y, en consecuencia, la activación de una serie de habilidades cognitivas, como el procesamiento y el análisis, la formulación de suposiciones, el razonamiento, la conclusión y la evaluación (Facione, 1990c, 2000; Facione & Facione, 1992, 1994, 2007; Facione, Facione & Giancarlo, 1997; Facione, Giancarlo, Facione, & Gainen, 1995; Wason-Ellam, 1989). Este artículo sugiere formas en que el profesorado usa libros sin palabras para desarrollar las habilidades de pensamiento crítico de los estudiantes de primer curso y expandir su vocabulario.

Palabras clave: libro sin palabras, pensamiento crítico, vocabulario

Resum

En el llibre sense paraules el text està absent i el pes de la narració només té les imatges (Arizpe, 2013; Gibson, 2016). A l'aula, els llibres sense paraules poden ser utilitzats per grups reduïts d'estudiants o estudiants individuals, als que se'ls anima a fer suggeriments sobre el contingut de cada imatge del llibre. És un procés complex que requereix el desenvolupament del pensament crític dels infants i, en conseqüència, l'activació d'una sèrie d'habilitats cognitives, com el processament i l'anàlisi, formulació de supòsits, raonament, conclusió i avaluació (Facione, 1990c, 2000; Facione & Facione, 1992, 1994, 2007; Facione, Facione & Giancarlo, 1997; Facione, Giancarlo, Facione, & Gainen, 1995; Wason-Ellam, 1989). Aquest article suggereix maneres en què el professorat utilitzallibres sense paraules per desenvolupar les habilitats de pensament crític dels estudiants de primer curs i ampliar el seu vocabulari.

Paraules clau: llibre sense paraules, pensament crític, vocabulari

1. Introduction

Wordless books or silent books are a special category of picture books from which the text is absent and their content becomes known only through images. They break the stereotypes of reading and suggest new ways of understanding the story of the book. In wordless books the illustration has the weight of the narrative (Arizpe, 2013; Gibson, 2016). They are based on the attention readers/viewers show in details and interpretations of spatial planning, layout and composition of illustration, in order to construct meaning only through images (Nodelman, 1988, 1991; Sipe, 2008). At the same time, they enhance narrative invention, cultivate fictional skills and release children's spontaneity and imagination (Jonston, 2001).

Wordless books could be considered an ideal tool for developing oral and written skills (Smith, 2004). They are extremely useful tools in cultivating literacy skills. The absence of the text makes wordless books accessible to children at all stages of emerging reading (Jalongo, Dragich, Conrad & Zhang, 2002).

Reading wordless books, leads the reader/ viewer to promote visual literacy (Economidou, 2016). Furthermore, it contributes to the acquisition of metalanguage, which is fundamental for the development and enhancement of the reader/ viewer's ability to think critically (Housen, 2002; Pantaleo, 2016).

In the process of meaning making through images the viewer converts the visual information into verbal. Words, phrases or even compound sentences are formed in his mind. So, the term "reader" can be used in the case of books without words. From the above finding it can be concluded that the process of decoding an image is a complex process and requires the acquisition of an adequate vocabulary by the viewer. This vocabulary will help the viewer to transform the image information into a logical and coherent narrative (Nodelman, 1988). However, reading images is a complex and

energetic process. It demands a viewer, who will use his previous knowledge and experiences in order to capture the meaning of the book's story through the pictures (Nodelman, 2008).

Nowadays wordless books are used more and more by teachers in the classroom. They are "read" by small groups of students or individual students, who are encouraged to make suggestions regarding the content of each picture in the book. Image meaning is a complex process that requires the development of children's critical thinking and consequently the activation of a number of cognitive skills, such as processing and analysis, hypothesizing, reasoning, conclusion and evaluation (Facione, 1990c, 2000; Facione, Facione & Giancarlo, 1997; Facione, Giancarlo, Facione, & Gainen, 1995; Wason-Ellam, 1989). Through this paper ways are suggested which teachers use wordless books and activities are planned in order to develop First Grade students' critical thinking skills and expand their vocabulary.

> **Image meaning is a complex process that requires the development of children's critical thinking and consequently the activation of a number of cognitive skills, such as processing and analysis, hypothesizing, reasoning, conclusion (APA, 1990).**

We hope that this proposal will be a challenge for teachers to integrate wordless books in the educational process with the aim of the students' critical thinking development and vocabulary expansion.

2. The use of wordless books in educational process

The use of wordless books helps to create an attractive context in the classroom that develops students' critical thinking skills and encourages verbal interaction between them. The detail and vibrancy in the images enhance observation and promote the use of an equally vivid vocabulary by children (Norton, 1999).

Because of the lack of written text, wordless books create students' desire to promote their communication skills and use language (Norton, 1999). Using wordless book students express themselves, communicate and generally develop oral skills (Fields & Spangler, 2000; Norton, 1999). As children find out the sentences in order to interpret the images, they understand that the plot of the story is related to the sequence of images and realize that pictures are "read" from left to right (Huck, Hepler, Hickman, & Kiefer, 2001; Tomlinson & Brown, 2002).

Wordless books give children an opportunity to make sense of the pictures, to use the knowledge gained from other stories they have heard or read and create their own story (Yellin & Blake, 1994). As the story of wordless books evolves only through pictures, the child who "reads" these books first

makes some assumptions in order to interpret pictures, then connects them and finally comes to some conclusions (Yellin & Blake, 1994, p. 195).

Wordless books are suitable for students who have not fully mastered the mechanism of reading because the meaning making of these books does not depend on the students' ability to read a written text (Ellis & Preston, 1984; Galda & Cullinan, 2002). "Reading" wordless books, children are encouraged to formulate many different answers in a discussion in which students with different linguistic and cultural backgrounds can participate as well (Cassady, 1998; Perry, 1997). So, wordless books become an ideal tool in teachers' hands transforming classrooms into inclusive spaces (Early, 1991).

In most wordless books the story is usually short. Picture interpretation is a complex process because there is no text through which the viewer could easily take information about the plot of the story (Early, 1991). As the story depends entirely on the images, the viewer draws all the elements needed for the understanding of the story through the images. In order readers to understand the visual and narrative conventions of wordless books, they have to be able to analyze specific elements such as the plot, the setting, the description of the characters and the point of view. In order students to understand the aforesaid elements, they observe the pictures carefully. They focus on the details of the images (Galda & Cullinan, 2002) which emphasize on body language and the facial expressions of the characters that are depicted (Glazer, 2000). Careful observation of the images and the following discussion in the classroom provide the basis for the development of children's critical thinking (Anagnostopoulos, 2003; Wason-Ellam, 1989).

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3. Critical thinking

Critical thinking dates back to the Greek philosophy. Especially, it was rooted in Socratic questioning. Socratic method is based on the logical analysis of data, in control of the validity of the experiences and in the formulation of objections that control the acquired knowledge (Matsagouras, 2002).

Dewey (1910, 1933, p. 6) defined critical thinking as a "consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends". Glaser (1941, p. 5) described the critical thinking skills as "the methods of logical inquiry and

reasoning". According to Matsagouras, 2001, p. 77) critical thinking is the "cognitive function that activates selectively and combinatorially cognitive skills, logical reasoning and metacognitive strategies with the help of which the individual processes data in a logical way, distancing himself from his personal beliefs and prejudices to reach valid and logical conclusions, findings, judgments, beliefs and choices of action".

Critical thinking is one of the most essential cognitive skills that someone can develop. Freire (1973, 1993) argued that the ability to think critically helps people to be active citizens in society and empowers individuals "to reflect actively on issues that are relevant to their own lives" (Fisher, 2001, p. 2). Nowadays critical thinking has been a crucial goal of higher education (Paul, 1993). It is generally defined as an individual's ability (Pascarella & Terenzini, 2005) and a complex competence consisting of skills, knowledge, and dispositions (McPeck, 1990). Ennis (1987, p. 18) defined critical thinking as "a reasonable and reflective thinking that is focused upon deciding what to believe or do". According to Halpern's definition (1985) critical thinking is the kind of thinking involved in formulating inferences, solving problems, making decisions and calculating likelihoods. Critical thinking skills are considered vital for student in order to face the challenges of adult life (Paul, 1993) and for this reason the development of students' critical thinking has been an essential goal of education (McMillan, 1987).

The importance of critical thinking for educational evaluation and teaching was the reason for the

The A.P.A. Delphi Report (1990) describes in detail the skills and sub-skills of critical thinking and gives relevant examples (Facione, 1990c, 2015). Facione identified the core skills that make up critical thinking: a) interpretation, b) analysis, c) evaluation, d) inference, e) explanation and f) self-control.

creation of an interdisciplinary team by US and Canadian scientists in the late 1980s. The task of the experts of this group was to participate in a research, on behalf of the American Philosophical Society, for the purpose of studying critical thinking. The results of the research were published in 1990 in a report known as the Delphi Report, authored and moderated by interdisciplinary team work by Peter Facione, a professor at Loyola University in Chicago. According to the expert critical thinking skill is the process of intent and self-regulating reasonable decision. The A.P.A. Delphi Report (1990) describes in detail the skills and sub-skills of critical thinking and gives relevant examples. Facione (1992/ 2020) identified the core skills that make up critical thinking: a) interpretation, b) analysis, c) evaluation, d) inference, e) explanation and f) self-control. These are the same skills that include in the most important academic collaboration activities (Facione, 1992/ 2020). Figure 1 is a representation of the consensus of experts in the field of Philosophy, Psychology, Sociology, Pedagogy and Education.
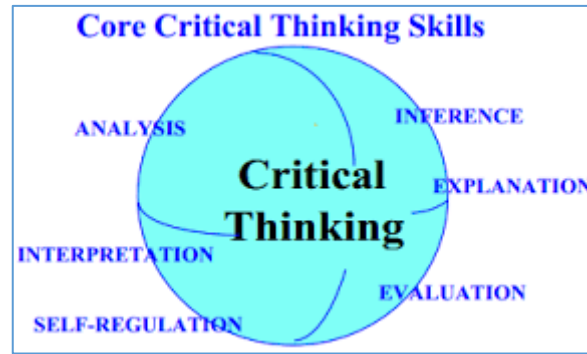
Figure 1. Core skills of critical thinking. Source: Facione, 1992/ 2020.

According to the expert group's statement of consent, interpretation is defined as the ability of the individual to understand and recognize the importance of experiences, information, situations, facts, judgments, beliefs, claims, rules, criteria and procedures. The basic skills of interpretation are: a) categorization, b) decoding of concepts, and c) rendering meaning (Facione, 1990a, 1992/ 2020).

Experts have defined analysis as the ability of an individual to recognize the relationships between statements, questions, concepts, descriptions or other forms of representation that aim to express beliefs, opinions, judgments, opinions or experiences. The main skills of the analysis are: a) the consideration of ideas, b) the identification, and c) the analysis of arguments.

According to the experts, explanation is the ability of an individual to articulate the result of his reasoning through persuasive arguments and present in an understandable way the concepts, methods, presumptions and hypotheses on which the arguments have been based. The main skills of the explanation are: a) the reporting of the results, b) the justification of the procedures, and c) the presentation of the arguments (Facione, 1990a, 1992/ 2020).

Besides, inference is related to the individual's ability to search for and locate information that is necessary in order to create valid conclusions and make assumptions. The main skills of inference are considered: a) the search for data, b) the connection of alternative hypotheses, and c) the drawing of conclusions.

Evaluation is related to an individual's ability to assess the reliability of statements and reports that describe person's views, perceptions, judgments, beliefs, or experiences by assessing the logical strength that lies between descriptions, statements, questions or other forms of representation of thought. More specifically, it concerns the individual's ability to assess the appropriateness of arguments on a problem, issue or event.

Finally, self-regulation is the most important cognitive skill as it allows the critical thinker to improve his thinking. It concerns the ability of the individual to monitor cognitive activities by applying analysis and evaluation skills in order to challenge, confirm, validate or correct one's reasoning or one's own inferential judgments (Facione, 1990a, 1992/ 2020).

3.1. Critical Thinking Skills acquisition

Critical thinking has developed into a movement, already from the last decades of the last century (Matsagouras, 2005; Trilianos, 2002). Three of the basic assumptions of the critical thinking movement are the following (Matsagouras, 2005):

a) In addition to the neurophysiological infrastructure of the brain, the quality and effectiveness of thinking are also influenced by the person's cognitive strategies and attitudes and the knowledge he has acquired. Both cognitive strategies and attitudes, as well as knowledge are direct influences from the teaching-learning process.

b) Cognitive skills are instructive and they can be immediately improved and upgraded with the help of the teaching-learning process.

c) All subjects offer opportunities for the development of various aspects of critical thinking, such as inductive and deductive reasoning, formulation of a series of inferences, logical proof, dialectical controversy and evaluation.

Critical thinking skills can be improved through teaching (Abbott & Wilks, 2005; Halpern, 1993, 1996; McGregor, 2007). According to Matsagouras (2005);

> "Critical teaching is any form of teaching which, within a framework of active participation of students, develops data collection and processing activities, which mobilize the higher cognitive functions of students and lead to the formation of concepts, judgments, generalizations, processes and patterns of world interpretation" (p. 138).

Critical elements of critical thinking are logical reasoning, which include inductive and deductive reasoning, cognitive skills, as well as diagnostic elements. These include structural data analysis and cognitive skills of overcoming data and evaluation.

According to the Delphi Report (Facione, 1990c), the teaching of critical thinking should aim to develop critically minded individuals. It's means that, individuals could be able to successfully develop critical thinking skills, both in other areas of study (knowledge transfer) and their daily life. The teaching of critical thinking skills should not be random, but rather be based on a specific curriculum and be accompanied by an assessment of their degree of acquisition and development. An internationally

accepted way of assessing the level of development of critical thinking skills is questionnaires. If teachers want to intensify their effort and improve the level of knowledge of critical thinking skills and assess the development of critical thinking skills, they can manage this process diagnostically after relevant teaching.

Critical thinking skills can be developed by explicit instructions (Gardner, 2009; Higgins, et al., 2004; McGuinness, 1999). Particularly, Silvia Pantaleo (2016, p. 2) in her article, discussed "how the explicit instruction of visual art and design of picturebooks/ picturebooks' visual art and design can develop students' critical thinking skills". The students need instruction in order to interpret, compose, and create visual communications (Avgerinou & Pettersson, 2011). They must learn "that it is essential to see, not merely to look" (Macaulay, 1991, p. 419). Learning about the value of viewing helps students view "images with a critical eye" (Santas & Leaker, 2009, p. 182) and think about images more deeply (Pantaleo, 2016).

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4. Theoretical framework

The purpose of this paper is to suggest activities that explore and promote the development of First Grade students' critical thinking skills and expand their vocabulary. In order to engage children in "purposeful thinking that requires both critical and creative thinking" (Paul & Elder, 2005, p. 5) we propose activities through which students could be able to "figure out" how elements of visual art could be used by artists to communicate meaning in picturebooks. In order to facilitate reasoning, the students need to create "thoughts about the artwork in tandem with monitoring and assessing their thinking according to specific criteria" as accuracy, clarity, relevance precision and logic (Pantaleo, 2016, p. 3).

 Besides, the classroom teachers can apply these criteria when they interact orally with pupils during discussions and when they talk with them about their writing. They follow a specific process and protocol called the visual thinking strategies curriculum (VTS) to facilitate a pupil-centered discovery process which involves pupils examining, discussing, and reasoning about images. The intent of VTS is "to build visual literacy" skills (Yenawine 2013, p. viii). The VTS process which originated in 1991 at Museum of Modern Art in New York consists of 3 questions:

- What's going on in this picture?
- What makes you say that?

- What else can we find?

Studies on VTS conducted by Housen (2001, 2002) revealed that students who participated in VTS program "used significantly more supported observations and speculations" (Housen, 2002, p. 116) when they responded to a work of art. DeSantis and Housen' s findings (2009) indicated that Grade 8 students have developed their critical thinking skills supported by VTS process. Finally, the three years study on the impact of VTS (DeSantis & Housen, 2009, p. 6) on Grades 3–5 students revealed that "even though control students started out ahead, the experimental students significantly outperformed them in both aesthetic and critical thinking growth".

We expect that the students will take the opportunity to understand the benefits of looking carefully at wordless book; to discuss what they observed and what are their thoughts; "to learn to support their observations and ideas with evidence; and to understand that elements of visual art can often be interpreted in a variety of ways" (Pantaleo, 2016, p. 4).

Explicit instruction about elements of visual art can improve students' knowledge and vocabulary; "enrich their responses, and increase their abilities to comprehend, interpret and systematically analyze what they see. This understanding and meta-language are fundamental to developing and enhancing students' abilities to think critically" (Pantaleo, 2016, p. 15). *Dos pajaritos* (Dipacho, 2010) was the wordless book, which is considered to provide an adequate framework for the development students' critical thinking abilities.

Our proposal recognizes the role of the image in the development of children's critical thinking and apply Pantaleo's findings (2016). Pantaleo argued that students' critical thinking can be developed through the analysis and interpretation of wordless book, which is considered "work of art". Besides, the "Critical Thinking Development Model", which has been proposed by Gail Smith (2004), was adopted. Through her model (Figure 2), Smith describes the steps that teachers could follow to encourage their students to understand the behavior of the protagonists of the story. In addition, she proposes activities and suggests ways in which teachers could implement wordless books in order to develop students' critical thinking skills.

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> Step 1: Activation of prior knowledge and prediction the history of the book
>
> Step 2: Submission of opinions and discussion
>
> Step 3: Writing a text (optional)
>
> Step 4: Analysis and description of the character's action/behavior
>
> Step 5: Extension/written language production (optional)

Figure 2. Critical Thinking Development Model (Smith, 2004)

Each of the above steps includes activities aimed to encourage students: a) to activate prior knowledge that will help them to predict the story of the book; b) to participate in discussions freely expressing their views on issues concerning the content of the book verifying or not their initial predictions; c) to write a text consisting of one or more sentences that will accompany the pictures; d) to describe and then justify the actions, motivations and characters' thoughts and finally; e) to produce a text that will outline the characters of the story.

5. The wordless book *Dos Pajaritos*

The wordless book *Dos pajaritos* has been designed by the author and illustrator Dipacho. The book was published by Lumen Publications in 2010. Through its colorful images the story of the book describes two small migratory birds from SW Europe that share the branches of a flowering tree. The involvement of only two heroes, the simplicity of the scene and the gradual description of the actions and desires of the birds in a leading role make the choice of this book suitable for the development of children's critical thinking on issues related to understanding the behavior of the characters. Initially, the birds' life on the tree flows calmly.

Gradually, the two birds are overwhelmed by feelings of greed, jealousy, arrogance and start competing one another gathering too many things −electrical appliances, household and decorative items, cars, bicycles, musical and gymnastic instruments, etc.− on the branches that host them. Eventually the branches break from the excessive load of useless items for the owners. The two birds desperately try to hold from the bare trunk of the once flowering tree. These narrative birds are the creation of adult thought, which in an advisory role indirectly attempts to control the behavior of young children. Apart from taking the form of a humanized hero, they also address adults. They are models to be avoided and criticize the weaknesses, passions, and shortcomings of adults (Gavriilidou, 2013).

The picture book *Dos Pajaritos* (Dipacho, 2010) is a visual text. It is more open to interpretation, puzzling the reader and being approached differently by different readers, in different time (Moriatry, 1996). Based on a) the above aspect along with the assumption that the image, as a work of art, is not just a point, but an open text with meaning (Moriatry, 1996), which is part of a system of points that speaks to us secretly (Uspenskij, Ivanov, Toporov, Pjatigorskij, & Lotman, 2003, [1973]), and b) that the reader/ viewer is called to make sense of it by activating his critical thinking skills (Pantaleo, 2016), the wordless book *Dos pajaritos* (Dipacho, 2010)   has been

The wordless book "*Dos Pajaritos*" (Dipacho, 2010) has been chosen to foster First Grade students' critical thinking skills. Because of this kind of books are the product of the inspiration and the creation of an artist/ illustrator, "*Dos Pajaritos*" (Dipacho, 2010) undoubtedly could characterized as a work of art (Pantaleo, 2016).

chosen to foster First Grade students' critical thinking skills. As *Dos pajaritos* (Dipacho, 2010) is the result of inspiration and the creation of an artist/illustrator, undoubtedly it could be characterized as a work of art (Pantaleo, 2016).

The idea that images are mainly open texts, that are subject to personal interpretation, (Moriatry, 1996) is an important parameter that was seriously considered in the design of this proposal. The finding of Eco (1989) showed that the reader plays an important role in the interpretation of opensource texts, is exploited in order to foster children's critical thinking skill. Finally, this proposal is expected to contribute to the salience of visual communication in the creation of a complex and highly creative interpretive process (Moriatry, 1996).

6. Presentation of activities

Step I: Activation of prior knowledge and prediction of the history of the book

Before applying the Gail Smith's Model (2004), students could have been initiated into the following elements: 1) colour; 2) line; 3) typography; 4) framing; 5) physical aspects of picturebooks; 6) point of view; and 7) perspective. The meta-language about the focus elements could be reviewed continuously throughout the intervention.

- Specifically, the first step begins before "reading" the book and focuses on activating the prior knowledge of the students in the classroom. Initially the teacher presents the cover of the wordless book *Dos pajaritos* (Dipacho, 2010) to children. Then he/ she reads the title of the book and asks students to submit their views on the scene depicted on the front cover (Kalogirou & Vissaraki, 2005). He/ she encourages students to predict the story of the book and asks the following questions:

- How do the two birds spend their time?

- What do you think their relationship is?

- The two birds share the branches of a tree. What are the names of the people who share the same house or apartment?

- How do you think the roommates' relationships are?

- Have you (or someone you know) ever had a similar relationship with your roommate?

The above questions encourage students to identify with the characters in the story and relate what they see to their experiences. These questions activate the development of children's critical thinking skills because they contribute to the understanding of the actions and behavior of the characters in the story. In addition, the discussion in the classroom gives students the opportunity to anticipate and understand the plot of the book's story (Pantaleo, 2016).

Step II: Submission of opinions and discussion

When the previous step is completed, the book is presented to the class plenary by the teacher. If the classroom has the appropriate equipment, teacher will present the pages of the book on a projector. Children are divided into small groups 4 or 5 pupils per group. They are encouraged to engage in a discussion about what they saw through the illustrated pages of the book. If students are unfamiliar with wordless books, teacher will explain to them that the book is different from some other books they have read, because there are no words to read in it and the author tells the story only through the images.

- The teacher gives the appropriate time to children to work in groups and then to present to the plenary of the class the story they have understood. Then the teacher shows to the plenum the selected pictures depicting the branches of the tree loaded with various objects and asks the children the three VTS questions (Yenawine, 2013) giving to them the opportunity to describe the pictures in their own words, to think critically and to justify the motives of the actions or the feelings of the book heroes. What's going on in this picture?

- What makes you say that?

- What else can we find?

The teacher then re-examines the students' predictions regarding the content of the book and helps them verify their predictions or not. Students are encouraged to make comparisons in order to find out what they thought when they looked at the cover and in what conclusion they came to when they saw the pictures of the book (interpretation). The discussion about the wordless book story helps children to grasp the meaning of the story by observing and connecting what they have seen through the pictures with their prior knowledge (analysis), making predictions about what will happen or what could have happened (inference) (Facione, 1990).

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Step III: Written text

The teacher encourages children to write a text that may consist of one or more sentences, which would accompany the pictures in the book. Because each page of a wordless book has many images[1], it is a good idea for children to write a sentence if there is only one picture. If there are more images/scenes on each page, they could write a separate sentence for each image of the page. Undoubtedly, writing a sentence for each image is a simpler process, because interpreting an image requires a smaller number of ideas. In *Dos pajarito s*(Dipacho, 2010) it is recommended that students write a sentence for each page.

Alternatively, it is recommended to use sticky notes with written text for each illustrated page (McGee & Richgels, 1990). Sticky notes allow groups to change the text, to separate and merge text and images. This process contributes to: a) the construction of the meaning of the book's story as a product of text and image collaboration and b) the development of children's vocabulary (Housen, 2001, 2002; McGee & Richgels, 1990; Pantaleo, 2016).

Step IV: Analysis and description of the character's action/ behavior

In order to describe the actions, motivations and thoughts of a character, the teacher shows students selected illustrated pages and asks them to describe the actions of the characters in the book. Students describe the images looking for some connection between the character's actions. The teacher

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[1] These images that appear sometimes in a frame and sometimes without a frame, show a narrative sequence. They depict a different moment and all together compose the meaning of the whole page of the book (Martinidis, 1990).

randomly writes down these actions on a reference board and prompts children to group them based on some characteristics. For example, the actions described by the verbs: leaves, returns, brings, reappears… could be grouped together as they describe the little birds' effort to collect as many things as possible on their branches. Then the teacher encourages students to perceive the characters' behavior or actions as part of a repetitive pattern. Recognizing the pattern in the actions of the book's characters develops young students' critical thinking skills (evaluation) (Smith, 2004).

In *Dos pajaritos* (Dipacho, 2010) winged heroes are often depicted looking at each other and then flying and returning carrying another useless thing. Students may include the words "jealous" or "feels jealous" in the list of heroes' actions. The book also includes images depicting things without any useful value for the protagonists of the story (e.g., toilet bowl, bicycle, car, etc.).

Children may not use the word "junk" to justify the vanity of birds, which are engaged in a "hunt" for junk with disastrous consequences for themselves and their nest. It is the same mania that overwhelms people that makes them dependent on material goods. It's a pathological relationship with material goods and a constant effort to satisfy the insatiable thirst of material bliss. However, the teacher can help students to justify the deeper reasons that led the heroes of the story to adopt this behavior (inference) (Smith, 2004).

Then the teacher encourages students to challenge, confirm, validate or criticize he strategies, inferential judgments (self-regulation) of classmates in order to improve students' thinking. It concerns the ability of the student to monitor cognitive activities by applying analytical and evaluative skills (Facione, 1990a, 1992/ 2020).

The teacher can use various strategies in order children to understand and then describe the actions and behavior of the characters (Kalogirou & Vissaraki, 2005). Some playful activities that could be done in the classroom are represented below. These activities could be adapted by teachers based on the needs and level of their students.

Activity title	Activity description
Let's draw…	Students draw a scene to describe an action of the heroes in the story. Then they present what they painted explaining their choices.
Who will sit in the investigative chair?	A child impersonates the "character" and sits in the investigative chair. Then the classmates ask him/her questions related to motivations that led him/her to the specific behavior.

Come and play role-playing games…	Children in groups perform with their body a scene from the book that depict an action or emotion of the character. Each group presents its topic in plenary and explains why it chose it. The members of the other groups try to guess the content of the representation. Through the action and the movement children experience heroes' emotional state and explain the motivations that incite them to carry out in an uninterrupted pursuit of consumer goods.
Giving a different ending to the story…	Applying the technique of dramatization children try to give a different ending to the story. They are divided into two groups: a) the actors who articulate the emotions of the heroes with face and body expressions, and b) the narrators who describe in words the emotions of the heroes.
Searching for the right word…	Teacher encourages students to use the right words in order to think and describe the reasons that led the heroes to specific actions and behaviors. The search for descriptive words enriches children's vocabulary and leads to the understanding of the special characteristics that make up the character of the heroes.

Table 1. Activities in the classroom

7. Discussion

This article describes the process of developing First Grade students' critical thinking based on the "Critical Thinking Development Model" by Gail Smith (2004). To do so, we used the wordless book *Dos pajarito s*(Dipacho, 2010).

The book was selected based on certain criteria, such as the age of the children who were asked to approach it, the simplicity and clarity of its content, the authenticity of the story and the limited number of concepts that it negotiates. The book captures in a unique way the feelings of greed, jealousy, arrogance and competition that dominate the protagonists of the story. The above characteristics contribute to the implementation of Smith's model (2004) in educational process. Finally, the book helps students to develop their critical thinking skills to understand the heroes' actions.

Teachers who apply traditional teaching in their classroom focus more on knowledge transfer and less on cultivating critical thinking skills. Furthermore, they do not use strategies for developing critical thinking in their daily interaction with students and among the students. Selecting appropriate books in combination with applying appropriate strategies teachers promote critical thinking skills and enrich

students' vocabulary. In general, the analysis of multimodal texts, such as wordless books, facilitates students in receiving and decoding the history of the book and helps in receiving messages and building knowledge around the visual codes (Chatzisavvidis & Gazani, 2005).

The function of the wordless book is utilized by the present educational proposal with the aim of enriching First Grade students' vocabulary and the development of their critical thinking skills. The image is no longer a means of transmitting information but a place of meanings making. The child is not treated as the recipient of visual messages, but as an active reader of these meanings (Kostantinidou-Semoglou & Theodoropoulou, 2005).

Regarding the image analysis by the student, visual "grammar" explores the relationship between two different types of communication, speech and image. This grammar refers to the relationships that are structured between persons, spaces and objects that are depicted and the relationships that develop with the viewer and the structure of the images (Kress, 2000).

This educational proposal is not a recipe that the teacher will be able to apply in the classroom without making the necessary adjustments to the level and needs of his/ her students. Cultivating critical thinking skills is a difficult, complex, laborious, and time-consuming process (Abrami, et al., 2008; Knight & Page, 2007; Kuhn, 2000; van Gelder, 2005). It cannot be achieved by mechanistic processes, simple knowledge transfer, repetitive practice and problem-solving recipes. It must be a constant and permanent goal of daily teaching practice. Nowadays, more and more researchers, educators and technocrats endorse that the practices, which promote critical thinking skills, would be integrated into everyday teaching and learning (Asterhan, 2013).

The proposal emphasizes the role of the school in promoting the student's critical thinking skills. The school must provide the opportunities in order to prepare properly and adequately cultivate critical thinking skills. This requires an appropriate organization of the learning environment, so that the student would be able to compare, categorize, evaluate arguments based on evidence, discover relationships between data, argue using supportive tools, such as wordless books. Wordless books are supportive tools, which through appropriate practices contribute to the enrichment of vocabulary and the cultivation child's critical thinking skills such as

Wordless books are supportive tools which through appropriate practices contribute to the enrichment of vocabulary and the cultivation child's critical thinking skills such as interpretation, analysis, inference, evaluation and self-regulation (Facione, 1990c; Facione & Facione, 1992, 1994, 2007; Facione, Facione & Giancarlo, 1997, 2000; Facione, Giancarlo, Facione, & Gainen, 1995; Wason-Ellam, 1989).

interpretation, analysis, inference, evaluation, and self-regulation (Facione, 1990c, 2000; Facione &

Facione, 1992, 1994, 2007; Facione, Facione & Giancarlo, 1997, 2000; Facione, Giancarlo, Facione, & Gainen, 1995; Wason-Ellam, 1989).

Wordless books are excellent teaching tools in the hands of teachers in order to approach concepts related to the behavior of the protagonists of the story - and not only - because their use always requires children to think critically based on their own experiences (Giannikopoulou, 1996; Siorikis, 2013; Smith, 2004).

We hope that this teaching approach will be a challenge for teachers who are going to implement Smith's model (2004) and integrate wordless books in the educational process with the aim of the students' critical thinking development and vocabulary expansion.

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