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The critical dialogical method in Educommunication to develop narrative thinking

El método dialógico-crítico en Educomunicación para fomentar el pensamiento narrativo

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ABSTRACT

In the conceptualization of Educommunication, progress must be made towards the integration of its two great perspectives. Encouraging critical dialogue is a goal shared by both, so it is necessary to delve into its educational properties, methods and functions. A training model in Educommunication that has been tested through empirical research is presented. For two weeks, 246 children between six and eleven years old, attended training sessions with two types of audiovisual products. Half of the children were involved in a training process using critical dialogical methodology, whereas the training process for the other half of the children followed conversational dialogue methodology. The results show that children who follow the critical dialogical training benefit significantly in the construction of their media competence and narrative thinking, compared to the children of the conversational dialogical groups. The results also reveal that not all types of audiovisual content are beneficial to the construction of children's thinking. This research reveals the properties of the proposed critical dialogical method that allows children to improve their media competence and illustrates the complementarity between the diagnostic-static process of competences and the formative-dynamic process that leads to critical thinking. From an applied point of view, the critical dialogical method has been useful for use by teachers to foster a media education in their group of students that contributes to the development of narrative thinking.

RESUMEN

En la conceptualización de la Educomunicación se ha de avanzar hacia la integración de sus dos grandes perspectivas. Fomentar el diálogo crítico es un objetivo compartido por ambas, por lo que es preciso profundizar en sus propiedades, métodos y funciones educativas. Se presenta un modelo formativo en educomunicación que ha sido testado mediante una investigación empírica. Durante dos semanas, 246 niños entre seis y once años asisten a sesiones formativas con dos tipos de productos audiovisuales. La mitad de los niños sigue un proceso formativo según la metodología dialógico-crítica y la otra mitad una metodología de diálogo-conversacional. Los resultados muestran que los niños que siguen la formación dialógico-crítica se benefician significativamente en la construcción de su competencia mediática y pensamiento narrativo, en comparación con los niños de los grupos dialógico-conversacional. Los resultados revelan también que no todos los tipos de contenidos audiovisuales son beneficiosos para la formación del pensamiento del niño. Esta investigación pone de manifiesto cuáles son las propiedades del método dialógico-crítico propuesto que permiten al niño mejorar su competencia mediática e ilustra la complementariedad entre el proceso de diagnóstico-estático de competencias y el proceso formativo-dinámico que conduce al pensamiento crítico. Desde un punto de vista aplicado, este método ha mostrado su utilidad para ser utilizado por el profesor para fomentar en su grupo de alumnos una educación mediática que contribuya al desarrollo del pensamiento narrativo.

KEYWORDS | PALABRAS CLAVE

Educommunication, media competence, critical thinking, dialogue, audiovisual narratives, narrative thinking.
Educomunicación, competencia mediática, pensamiento crítico, diálogo, narrativas audiovisuales, pensamiento narrativo.

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1. Introduction

From a conceptual perspective, educommunication studies can be situated at some point of a bipolar dimension determined by the degree of intersection between Education and Communication. At one extreme are the works which focus on "media literacy", that is, development of media skills or competences. At the other, we find studies concerned with disentangling the contribution of the media education process to personal development (autonomy, creativity, critical attitude, empowerment, social participation, values, ideology and thinking). Both perspectives are necessary and compatible as they are dialectically intertwined. The epistemological conceptualisation of the field has to draw from both, as they share the importance of communication in education (and vice versa). Although inseparable in that education/communication pairing, in one the focus is on the notion of media competence, and in the other it centres on the education/development of the person. Although one cannot be reduced to the other, they can be included in a single study, as argued below.

These different conceptions in Educommunication share both the notion of communication and the critical and dialogical tradition (Gregorio, 2018; Barbas-Coslado, 2012). The main trends at the present time, which for many years have been distanced from a merely instrumentalist and technological vision, conceive Educommunication as a dialogical, participative and critical activity. Based on this consensus regarding the desideratum and purpose of Educommunication, it is necessary to delve further into what is understood by dialogue and critical thinking and, especially, how it is fostered in the educational context. By way of responding to this need, this paper advances a theoretical and methodological proposal, tested by means of empirical research, which shows the benefits of the critical dialogical method for Educommunication. The approach includes expanding the notion of media competence and organising it into a training methodology that includes a specific conception of dialogue and context.

1.1. Media competence, thinking, critical dialogue and training context

Studies into media competence have established a set of dimensions and indicators (Ferrés & Piscitelli, 2012; Pérez-Rodríguez & Delgado-Ponce, 2012) which have resulted in a diagnosis of insufficient media competence levels in both adults and children (Ferrés et al., 2011; Pérez-Rodríguez et al., 2019; García-Ruíz et al., 2014; Caldeiro-Pedreira et al., 2017). This type of enquiry is important, as it draws the attention of political institutions towards the need for educommunication in education. They are diagnostic studies– and therefore of a structural and static nature –which measure the acquired level at a specific moment. The question being raised is how to improve competence levels and to what end. If Educommunication seeks to integrate the two poles mentioned before, it must connect the static diagnosis of media competence with dynamic models that lead to learning and to the improvement of these structures in educational contexts. If it seeks to foster autonomy, creativity, dialogue and critical thinking, it must review and expand the concepts it uses, its tools for analysis and the methods employed. It is therefore necessary to broaden the conception of what we understand as media competence, which implies theoretical, methodological and applied reflection.

As we understand it, diagnostic-static media competence must be complemented by a second, formative-dynamic approach, and vice versa. It is therefore necessary to locate and integrate the dimensions and indicators of media competence of knowledge, comprehension and expression (Pérez-Rodríguez & Delgado-Ponce, 2012), within the broader context of thinking. This includes a set of mental processes and a context of action. Media communication mobilises the former (attention/perception, comprehension, memory, knowledge, imagination, etc.), in a process of building the structures of knowledge, following a dialectic of assimilation of the media content (coding/decoding, comprehension, interpretation, evaluation) and of accommodation of this (expressiveness, creativity, production, participation and critical attitude). The manner in which the mental processes are activated will depend on the conditions of the context and the subject's level of cognitive development. The acquisition of media competence and critical attitude which Educommunication seeks to foster will depend on the way in which the educational activity is organised, the characteristics of the context where the activity develops and the manner in which these mental processes are mobilised based on the context. Thinking is activated when we face an internal or external disequilibrating situation perceived as a problem for which we must provide a response. The

result of thinking leads to this response and is linked to action, either to guide it/evaluate it, or to trigger it. Thinking is therefore a homeostatic process of self-regulation and optimising equilibration of cognitive structures (Piaget, 1975) that leads us to attempt to provide a response to the difficulties presented by our environment. This makes us learn and accumulate experience.

In educommunication, dialogue participates in activating thinking and media competence. In conversational dialogue, the educator makes queries about the media content. The participants express-defend their (individual) opinions and attitudes. According to Bohm (1996), it is difficult for this type of dialogue to lead to the development of critical attitudes, as we understand them here, because it does not enable the current stance of the subject, relying on beliefs established prior to participation, to be questioned. If dialogue has to contribute to the change, as a result of the development of critical attitudes, there must be a process enabling this transformation and resulting in improved thinking skills and structures. We argue that this mechanism consists of a specific manner of questioning implemented in the context of a collective/group search and which we will term critical dialogue. This type of dialogue differs from conversational dialogue. It has elements in common with Socratic maieutics and other contemporary positions such as the problematisation of knowledge (Freire, 1973) and the critical method in the construction of cognitive structures (Inhelder et al.,1974; Inhelder & Cellerier, 1996).

As Bang (2016) argues, a situation contributes to development when one of the participants experiences a state of openness, uncertainty and indeterminacy in relation to what is happening at that moment. This can lead the participant, if the conditions are suitable and encourage this, to make mental adjustments and decisions which result in new actions that seek to restore balance to the disequilibration experienced. In this process, as asserted by Sartre (1943), there is questioning, and a search for answers, as argued by Dewey (1938).

Finally, in order to be able to implement critical dialogue, it is essential that there is a certain type of context in which a specific activity will take place. We can identify different types of training contexts based on the way in which the educator stimulates the dialogue and defines and develops the activity. To develop critical dialogue, we propose a sociocultural context (Wertsch, 1993; Lave, 2001; Rogoff, 1990; 2003), in which the educator promotes media competence and critical attitudes in accordance with the theory of activity theory (Leontiev, 1981; Engeström, 2015) and successive steps (Galperin, 1995; Talizina, 1988).

In summary, critical dialogue requires, from this theoretical perspective, a unit of analysis which includes the intertwining of four dimensions: a) the subject's competences which are activated/fostered during the activity; b) a specific media product; c) a sociocultural critical dialogue activity that is promoted and channelled by the educator in successive steps; and d) collective participation by the members of the group. The study detailed below illustrates this model, which has made it possible, at the same time, to demonstrate both a diagnostic process, and one of training media competence and changing thinking structures through critical dialogue in a sociocultural context.

1.2. Television stories and critical dialogical training: An empirical study

In a multi-screen world, consumption of audiovisual stories throughout childhood continues to be very significant (Gallardo-Camacho et al., 2020). Through that recurring and informal assimilation of audiovisual stories, children also gain media competence. This process can progressively model their narrative thinking structures. Today we know that there are two types of thinking: paradigmatic thinking and narrative thinking (Bruner, 1986). While the former applies above all to the physical world and to logical-mathematical abstractions, the latter applies to the social and personal world. Narrative thinking is activated both to understand and to respond and express oneself in the face of the vicissitudes experienced in one's social and cultural environment. This activity progressively shapes the construction of the person, identity and the person's sociocultural being.

Narrative thinking produces and feeds on stories (real and fictional). This is why interaction with media content is highly important, since this content participates in modelling people's thinking (Lipman, 1998; Mateos & Núñez, 2011; Aguirre-de-Ramírez, 2012) and progressively shapes, over the course of their childhood, their five cognitive-emotional structures: action, cause, intention-motivation, diegesis-space

and time (Bermejo-Berros, 2007). Thinking, to resolve a narrative disequilibrium, leads to these structures being set in motion. Education must seek to ensure the modelling of these structures is appropriate for the child. In addition, it has been highlighted how important it is that the structures built in this process enable children to transfer the principle of learning involved, adaptively, to new situations (Bruner, 2006). The question is which educational method can be used to foster acquisition of thinking structures that provide children with greater media competence. Based on this, the objectives and hypotheses of this study are:

1) To explore whether the context of training –either critical dialogue training or conversational dialogue training– on a media product is capable of improving children's narrative thinking structures and, by extension, their media competence. An initial hypothesis with regard to this type of training is as follows:

- H1. While children who follow a critical dialogue training process improve their stories and structure them coherently and appropriately for narrative thinking, merely exposing the children to audiovisual stories in a context of informal social interaction and conversational dialogue is not sufficient to improve the structure of their narrative schemata.

2) To explore whether certain audiovisual products encourage the development of media competence and thinking structures and others do not. Research on audiovisual stories has shown that there are "narrativizing" products which encourage cognitive development and other "denarrativizing" products which disarrange it (Bermejo-Berros, 2007). A second hypothesis thus considers the influence of the type of audiovisual story on the child:

- H2. Narrativizing stories contribute to enabling children to benefit from the educational processes of educommunication in their acquisition of media competence, whereas denarrativizing stories do not allow them to obtain those benefits.

3) To assess whether the children's age, as an indicator of their development level, influences the potential benefits to be obtained from the training process in the Zone of Proximal Development (ZPD) and whether these benefits are also greater when the story is of the narrativizing type. A third hypothesis is posited:

- H3. Both the type of training and the type of audiovisual story affect the benefits children can obtain and their intensity will depend on their level of development.

2. Material and methods

2.1. Participants and experimental groups

Over two weeks, 246 children from two schools in Castilla y León, from the 1st, 3rd and 5th grades of primary school (M: 6;8, 8;2 and 10;8), participated in four sessions lasting 50 minutes each, which took place in the school's audiovisual classroom.

The pupils in each class group were divided into experimental groups, based on the three experimental factors explored in the research (type of training: critical dialogical training vs conversational dialogical training; type of story: narrativizing vs denarrativizing; age level: 1st grade-3rd grade-5th grade). By cross-referencing these three factors with their respective variables (group design: 2x2x3), 12 experimental groups were established for participation in the training sessions.

2.2. Method

In the first session (pre-test), the children watched an episode of an animated series and then took a diagnostic test to determine their level of comprehension and verbal retelling of the episode they had seen. In the fourth session (post-test), this procedure was reproduced using a different episode. Taking into account the indicators provided by earlier research (Bermejo-Berros, 2007), half of the experimental groups watched a total of four episodes of the narrativizing series "The World of David the Gnome" (GN) and the other half watched four episodes of the denarrativizing series "Dragon Ball" (DB). In the second and third sessions, after watching the episode (average length: 20'), the children attended a session (lasting 30') with the educator in accordance with the type of training they were assigned (critical dialogical or conversational dialogical). Therefore, the pre-test diagnosed the initial competence level, the two intermediate training sessions were activities that pursued learning of media competence and, lastly, the post-test diagnosed whether the training had induced microgenesis of narrative structures and media competence.

For the training phase, the method designed in this study was the result of taking the theoretical aspects introduced above into consideration and included the following components:

1) Type of activity: Based on activity theory (Leontiev, 1981; Engeström, 2015), the task-activity encouraged by the educator during the training sessions included various components. In this study, the two types of training structured the four components of the activity differently.

The motive, which can be external or internal, was the interpretation the children made of the context in which they found themselves (what I want to do and/or they have asked me to do) and which led them to give their actions or operations a direction/goal during the session. In the critical dialogical situation, the educator problematised the situation and impelled the children to direct their motive towards the need to carry out successive adjustments. In contrast, in the conversational dialogical situation, the educator/trainer reproduced the patterns of a natural context where they simply talk about a story they have watched. There was therefore neither problematisation nor re-direction of the initial motive.

The objective involved the materialisation of their motive. In the critical dialogical context, it was to retell the story well, whereas in the conversational dialogical context it was to talk about the story.

The action was the specific material response. In our case, it was the verbalisation by the children during the session. In the critical dialogical situation, the educator's actions consisted of asking specific questions which focused on the need for the children to participate by describing all the elements of the story well. These questions included the action components of the narrative sequences, the causal representation components and the space-time components (who does what, where, when, why and what for). This educommunicative process included all the elements that make up the five structures of narrative thinking. By contrast, in the conversational dialogical situation, there was no specific plan of action. The children's actions were the result of what they wished to say about the current story or past experiences, of spontaneous queries that came to them during the session. The educator/trainer merely invited the children to comment on the images, to give their opinion about the stories they had watched, to compare them with others, and so on.

Finally, the operation was the set of specific answers to each request or enquiry from the educator or from other children during the session. In the critical dialogical session, the children had to perform operations in relation to the five thinking structures in order to provide a response to the actions asked of them. By contrast, in the conversational dialogical situation, only those operations required for the spontaneous conversation occurring during the session were activated.

2) Training stages: In the critical dialogical situation, the educator's planning included four stages which sought to foster optimising equilibration: action (the children initially told the story); disequilibrium (the educator introduced queries which triggered cognitive perturbation as they invoked gaps appearing in the initial accommodating action); initial re-equilibration (the children respond to the disequilibration raised in the questions); final equilibration (the perturbation was resolved in such a way that ultimately the process of verbally retelling the viewed story was completed). There is, therefore, a cyclical interactive alternation between the expressive process of accommodation through language and the assimilation of the appropriate responses that have been provided in the interactions between those participating in the situation. These responses help the children understand perceived imbalances and lead to better cognitive balancing. This process goes "from the periphery to the centre" according to the concept of the optimising equilibration of cognitive structures (Piaget, 1975). It begins with a generic request made to the children to tell the story.

After the initial response, a process begins in which the questions which the children are answering make it possible to begin reconstructing the horizontal and vertical relationships of the three levels and of the five narrative structures described in the following section. It continues in this way, through successive steps, which go from the periphery (the what) to the centre (how, why and what for), eliciting progressive improvement of comprehension and expression of the five structures which comprise narrative thinking. This method is also consistent with that proposed by Galperin (1995), which leads children to progressive internalisation of the external verbalisations towards mental internalisation of these.

In addition, this scaffolding educational process, in which the reconstruction of the story's structural coherence is generated, takes place in the ZPD, as it begins at the initial level expressed by the child and,

during the session, through this maieutic procedure incites the child to produce better answers at the child's potential development level (Vygotsky, 2000). By contrast, in the conversational situation, there are no stages as such, as the activity follows the spontaneity of the participants, thus reproducing the media situation in a natural environment.

3. Results

The notion of media competence refers here to the degree of suitability of the process of assimilation/accommodation of the audiovisual story.

Being competent means being capable both of understanding the story viewed (assimilating it correctly to the knowledge schemata) and of retelling it later verbally and being able to give explanations that make it possible to verify the child has the mental ability to give an account of the five narrative structures that comprise it: (a*)* action/events (give an account of what happened); (b) coherence of the causal relationship (why did such or such a thing happen/what did it happen for); (c) intention-motivation of actants-characters in their personal, relational and functional identity (what does such or such a person intend and actantial functions) and (d/e) space-time relationships (where and when it happens; relationship between the actions situated before/during/after).

For the restitution of the components of these structures at the moment of telling the viewed story, it is necessary to perform microstructural/macrostructural operations (Marinkovich, 1999), through "reflective" abstraction activities (Piaget, 1975). These thinking activities make it possible to organise the story evoked by the child and its structures on three levels: level 1 of proximal sequential relations (SO: Sequential Order); level 2 of distal configurational relations (CO: Configurational Order) and level 3 of causal coherence (SN: Semantic Networks).

In order to analyse the results, the level of media competence of narrative thinking was evaluated, both in the pre-test and in the post-test, through calculating the Narrative Skill or Media Competence Index. This index measures, with regard to the media stories with which the children interacted, the degree to which they verbally reconstruct the five structures of narrative thinking. It thus represents the level of competence at the moment of accommodating the schemata assimilated during their viewing, diagnosed in the pre-test, and the degree of competence acquired during the training and tested in the post-test.

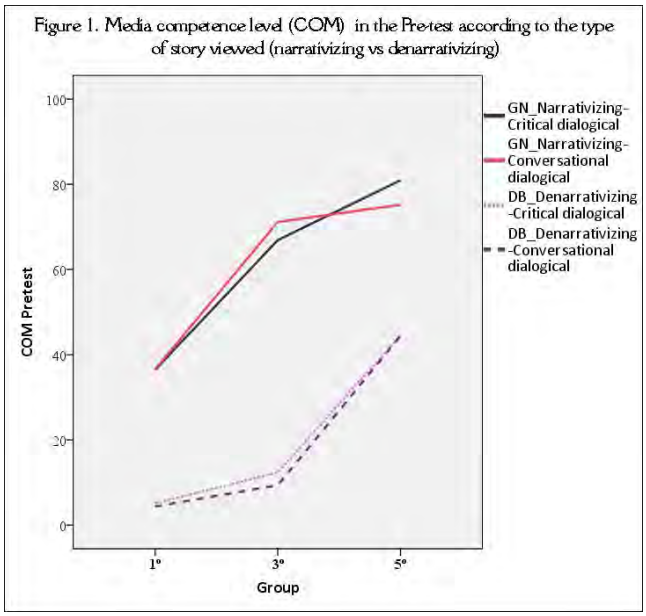
The Narrative Skill or Media Competence index (COM) includes both qualitative and quantitative elements. Both the structural level of the three structures (SO+CO+SN) and the Connective Density which contains the number of Temporal Connectors (TC), Causal Connectors (CC) and number of Segments evoked by the children in their narration (SEGMENT) are calculated. The theoretical foundation and methodological and empirical formulation of this COM index and its components has been explained in earlier studies (Bermejo et al., 2018; Oregui et al., 2019).

The following story told by Ana (8;4 years old) in the pre-test about the episode "The Siberian Bear" of The World of David the Gnome, illustrates the COM index calculation:

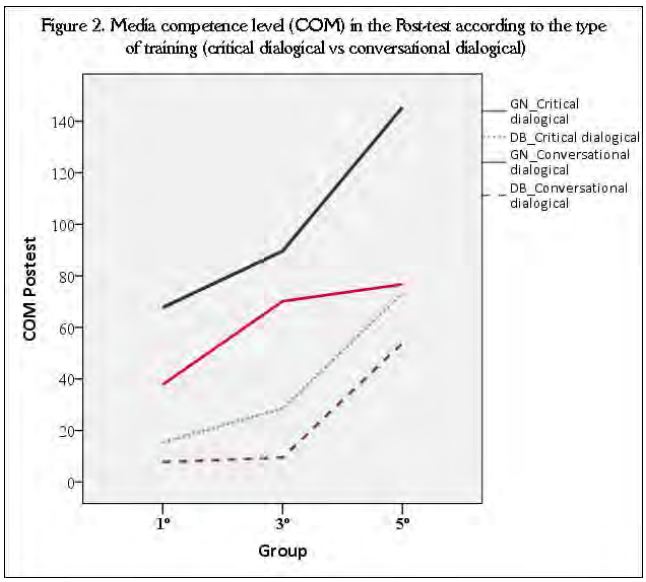
(A)[<"David was in the forest] $^{a/OS1}$ // and (B) [then, he went into his house]$^{a/CT}$ and [he told his wife he had to go] ^{b} and [they went in the sleigh] $^{c/OS5}$ [with his fox] ^{c1} // (C) [and it was snowing]^{a} [lots and lots] ^{a1} and [then, they went to a cave] $^{b/CT}$ and [it was night time]^{c} and [they fell asleep]$^{d/OS6}$ [Then, the next day, they got up] $^{e/e1/CT/OS7}$ [and it was sunny]^{f} and [they saw a friend of the King's]^{g} [who had gone to look for them]^{g1} [to take them to the King was]$^{h/CC}$ [Then, they had the skis]$^{g/CT}$ [to go through the snow]$^{g1/CC}$ and [they went to a place]^{h} [where they were skiing]^{h1} and [there was a competition]^{i} and [David want on the ski jump]^{j} [he did it really well]$^{k/OS8}$ // (D) [Then, they went and got to where the King was]$^{a/CT}$ and [the King told him to go to a place, where there was a bear in a tree,]$^{b/OS9}$ [who couldn't get down]$^{c/CC}$ // (E) [David ran a lot]^{a} and [they went to where the bear was]$^{b/b1/OS10}$ // (F) [they got a rope]^{a} [they tied the bear,]$^{b/OS15}$ [then, they cut the branch with an axe]$^{c/c1/CT/OS16}$ [but the bear didn't fall to the ground because it had the rope..]$^{d/CC}$ and // (G) [then the bear got out ok]$^{e/CT/OS17}$ [and it was saved]$^{a/OS19}$>>.

-Sequential Order (SO): [SO1-SO5-SO6-SO7-SO8-SO9-SO10-SO15-SO16-SO17-SO19] = 11
-Configurational Order (CO): [CO-SET=3; CO-CONF=2; CO-RES=3; CO-CONC=2] = 10
-Semantic Networks (SN): [A-B-C(Setting), D-E(Conflict)-F(Resolution)-G(Conclusion)] = 7
-Structural level (SL): 11/20 (SO evoked by the children/ total SO in story) +10/20 (CO) +7/7(SN) = 0.68x100= 68
-Connective Density (CD) = 32(SEGMENT) + 7(TC) + 4(CC) / 3 = 14.33
- COM Index = SL+CD=68+14.33=82.33

Figure 1 shows the influence of the type of story. In the pre-test, the narrativizing episode (GN) induced a higher level of media competence than the denarrativizing episode (DB).



The level of media competence in the post-test continued to be greater in the children who viewed narrativizing episodes (Figure 2). Secondly, the type of training benefitted, above all, the boys and girls who took part in critical dialogical training. However, while the conversational dialogical situation barely led to improvements in the competence levels of the younger children, the higher the level of development of the children, the more benefit they drew from the critical dialogical training, even when they were in a denarrativizing group. This indicates, on one hand, the positive benefit obtained from critical dialogue and, on the other, that this interacts with the level of development.



As is shown in Table 1, by comparing the score obtained in media competence of the post-test and the pre-test, through the related samples *t*-test, it is shown that the score from the critical dialogical group improved in the post-test, while the score of the conversational dialogical group was not statistically significant, except among male and female pupils in the 1st grade and female pupils in 5th grade who, in both cases, had watched episodes of Dragon Ball (with a denarrativizing structure).

Table 1. Comparison of score in Narrative Skill Post-test and Pre-test

Type of story (structure)	Age level			Critical dialogical training		Conversational dialogical training	
				COM Post-test	COM Pre-test	COM Post-test	COM Pre-test
DB (denarrativizing)	1st grade	Female pupil	*M* (*D.T.*)	14.23 (5.18)	5.31 (2.98)	7.83 (3.79)	4.17 (3.22)
			t	-7.092		-4.005	
			p	.001***		.01**	
		Male pupil	*M* (*D.T.*)	17.25 (2.92)	4.75 (2.49)	7.63 (3.89)	4.63 (3.07)
			t	-12.076		-6.000	
			p	.001***		.001***	
	3rd grade	Female pupil	*M* (*D.T.*)	28.30 (5.33)	11.80 (3.46)	8.67 (2.96)	8.67 (2.96)
			t	-11.224		-.000	
			p	.001***		1.000	
		Male pupil	*M* (*D.T.*)	28.80 (7.53)	13.00 (2.26)	10.67 (3.16)	10.33 (3.87)
			t	-6.788		-.535	
			p	.001***		.608	
	5th grade	Female pupil	*M* (*D.T.*)	72.80 (13.73)	41.20 (5.69)	50.27 (10.41)	41.45 (4.68)
			t	-9.403		-2.831	
			p	.001***		.05*	
		Male pupil	*M* (*D.T.*)	73.45 (9.62)	47.55 (9.06)	58.44 (10.37)	48.11 (4.43)
			t	-9.970		-2.261	
			p	.001***		.054	
GN (narrativizing)	1st grade	Female pupil	*M* (*D.T.*)	66.67 (10.58)	36.00 (6.38)	38.10 (6.97)	36.00 (9.32)
			t	-10.467		-1.481	
			p	.001***		.173	
		Male pupil	*M* (*D.T.*)	68.50 (4.83)	36.75 (5.69)	37.60 (6.35)	37.10 (7.34)
			t	-17.710		-.455	
			p	.001***		.660	
	3rd grade	Female pupil	*M* (*D.T.*)	90.25 (7.51)	68.17 (9.26)	72.00 (5.35)	72.82 (7.07)
			t	-12.640		.541	
			p	.001***		.600	
		Male pupil	*M* (*D.T.*)	88.63 (9.94)	65.00 (6.12)	68.10 (9.10)	69.30 (4.06)
			t	-10.420		.486	
			p	.001***		.639	
	5th grade	Female pupil	*M* (*D.T.*)	147.62 (17.41)	81.54 (7.50)	76.46 (3.38)	73.23 (6.92)
			t	-12.486		-1.987	
			p	.001***		.070	
		Male pupil	*M* (*D.T.*)	141.75 (17.61)	80.00 (9.58)	77.14 (4.98)	78.86 (5.21)
			Z	-2.521		1.072	
			p	.05*		.325	

p<.05*; *p* < .01**; *p*<.001***.

Secondly, a multiple linear regression analysis was performed (Table 2) to determine which factors predict the score of the post-test in narrative skill (age, type of training, type of story).

Table 2. Factors which predict the score of the Narrative Skill Post-test

COM Post-test	R^2	*F*	*B*	*SE B*	*β*	*t*	*p*
Model 1	**.881**	**356.959**					**.000*** **
Intercept (Constant)			-6.564	2.181		-3.010	.003
Predictor (Structure: Narrativizing)			50.138	1.741	.640	28.791	.000***
Predictor (5th grade)			55.433	2.134	.667	25.978	.000***
Predictor (Critical dialogical training)			27.305	1.743	.348	15.669	.000***
Predictor (3rd grade)			17.485	2.133	.210	8.196	.000***
Predictor (female)			-.164	1.753	-.002	-.093	.926
Model 2	**.881**	**448.040**					**.000*** **
Intercept (Constant)			-6.654	1.953		-3.408	.001
Predictor (Structure: Narrativizing)			50.138	1.738	.640	28.850	.000***
Predictor (5rd grade)			55.427	2.128	.667	26.041	.000***
Predictor (Critical dialogical training)			27.309	1.738	.348	15.709	.000***
Predictor (3rd grade)			17.483	2.129	.210	8.212	.000***

p<.05*; *p*<.01**; *p*<.001***.

The model conducted explained 88% of the variance and predicted that the post-test score for narrative skill is affected, in greatest to least extent order, by: viewing episodes of The World of David the Gnome with a narrativizing structure, being in the 5th grade in Primary Education, receiving critical dialogical training and being in the 3rd grade of Primary Education. The gender of the pupils, by contrast, was not statistically significant.

4. Discussion and conclusion

With regard to the first hypothesis (H1), three aspects make it possible to understand what happens during the training to enable the critical dialogical training to be more efficient than the critical conversational training:

1) The sociocultural critical dialogical context leads, as stated by Freire (1973), to a process of problematising the knowledge. As highlighted by Mercer et al. (2017), dialogue does not only permit an exchange of knowledge but is also a tool to structure thought. This process would not be possible without the precise manner in which the educator stimulates and conducts the sessions. In preparing the sessions, the educator designs the successive steps and identifies the competences to be fostered (the five narrative structures). At the beginning of the training session, and after viewing the audiovisual story, the educator invites the group to talk about what had happened. During the session, the educator follows a procedure to question the group by means of questions about the gaps and deficiencies detected in the verbal descriptions the children are giving about what had happened in the story viewed (where, how, why, etc.). As suggested by Bohm (1996), there is a joint search for answers. The children's replies lead the educator, in a process of successive feedback, to ask them anew about the aspects still to be clarified, using a methodology that follows the reconstruction of the knowledge from the more peripheral questions (what, where, when) towards the more central questions (why, what for, etc.), according to the terminology of genetic epistemology of optimising equilibration (Piaget, 1975). The initiative encouraged by the educator is perceived by the children as a collective search for answers to an enigma. This search for the meaning/sense of the story thus becomes a motivational factor for the group which is of a cognitive-emotional nature.

Lastly, all that is found by the group is summed up. This summing up, which satisfies the group, demonstrates a final coherence (in which we can identify the five narrative structures). By contrast, in the conversational dialogical group, the initiative follows a different route. Even when queries are posed about the television story watched, the dynamic is radically different. The role of the educator here differs greatly. The educator does not plan the interaction phases because the procedure of the session is based on spontaneity and the improvised flow of the activity, as would occur in an informal-natural context in daily life at home. The children express their opinions and explain what they believe had happened and why. They discuss the reasons given by one another. As stated by Bohm (1996), in the case of the conversational dialogical group, there is not a real group dynamic but rather individualised verbalisations of personal opinions/beliefs. While in the critical dialogical group there is a collective enigma to solve, here there is, by contrast, a search for getting it right (that is, verbalising which of the pupils knows the "right" answer to the educator's enquiry).

For the conversational dialogical group, the end of the session occurs when there are no more enquiries and the children feel that they have expressed their opinions and valuations. From the moment of this state of individual satisfaction/dissatisfaction, it does not become necessary to fully sum up the structural relationships of the story, which would serve as an example for the children to imitate in a later session, as does occur in the critical dialogical group. In short, in accordance with Camargo and Useche (2015), asking questions in a tool to develop critical attitudes. However, in the light of these results, it is not sufficient, as the questions must be part of a specific and efficient method.

2) The activity during the training sessions leads the participants in the critical dialogical group to a progressive and cyclical dialogical process of internalisation/externalisation of media competence about the story viewed. The efficient dynamic implemented by the educator activates the awareness mechanism in the children because it introduces and activates three factors. One is the appearance of doubt in the children. The notions of openness, uncertainty and indeterminacy (Bang, 2016) or questioning

(Sartre, 1943), reflect the cognitive disequilibration that, as argued by genetic epistemology, is the driver of psychological development (Piaget, 1975; Inhelder & Cellerier, 1996). A second factor, also identified in the school of Tran-Thong and Bridier (1977), is the change in direction that leads the focus of the attention from outside to awareness. This state of cognitive disequilibration leads children to seek an answer (Dewey, 1938). They find the answer both in their own cognitive system (as, in some cases, they had not initially activated all that they knew), and in the favourable sociocultural context in which they are to be found, where it is given to them, as proposed by Vygotsky (2000), and later activity theory (Leontiev, 1981), an external reconstruction of the story that can be internalised. In third place, the internalisation is not a mere transfer but a process of mental reconstruction that modifies their structures. This process of doubting, disequilibration, direction and reconstruction results, as shown in the results, thanks to the activity mediated by the educator, in the opportunity to give a new response which restores the balance, from the earlier imbalance. Being ready to do this means "criticising" the earlier position and therefore proceeding, voluntarily, to change it. This would be at the basis of the process of critical thinking.

By contrast, nothing of what we have just described occurs in the conversational dialogical group. The children do not perceive the need to change as the context simply invites them to participate, expressing their current knowledge, which is not called into question during the process.

3) In order for critical dialogue to acquire its true nature of critical thinking, a process of spontaneously transferring the critical attitude in new situations needs to occur. The spontaneous phenomenon of microgenesis (Inhelder et al.,1974) and optimising equilibration (Piaget) that we observe in the post-test bears witness that, through this externalisation and accommodation to the new story, the critical attitude from the training sessions have developed. The children, without receiving any pressure but perceiving during the training the need to improve their own contribution, now adapt it more efficiently in the post-test. They adapt it to what they have learnt during the previous sessions. Therefore, the collective reconstruction of the story has been internalised and demonstrates autonomous attitudes in the children. As noted by Bruner (2006), this transferral process is an educational factor of prime importance.

The results, with regard to hypotheses H2 and H3, enable us to understand that we have to take into account two supplementary factors that affect the efficiency of the critical dialogical method. On the one hand, it is necessary to know the type of media material we use with the children to foster their critical attitudes. The greater difficulty experienced by the children in reconstructing the narrative structures of Dragon Ball are due to the properties of this type of audiovisual product.

As has been analysed in previous studies, this type of audiovisual story introduces complex action, intentional and space-structures that require cognitive skills which are not suited to certain levels of development (Bermejo-Berros, 2007). This can comprise an obstacle to the development of the critical attitude as it is affected by the degree to which the structures of the story have been comprehended. By contrast, narrativizing stories like The World of David the Gnome, given their narrative features, can comprise good material for certain levels of development. A second factor, which must be considered by Educommunication in the teaching/learning of critical attitudes, is the level of potential development during the training. Vygotsky (2000) argued that the level of benefit that children ca obtain from the learning situation is related to their ZPD. In the same way, in our case, with age being a general criterion of development, we observed that the degree of improvement in the children's narratives is influenced by their age. The younger they are, the less benefit they get from the training in order to build better narratives in the post-test.

In conclusion, the critical dialogical method in the sociocultural context of successive steps, proposed in this study, has demonstrated its efficiency and usefulness to foster, in Educommunication, the acquisition of critical attitudes and media competence. In future research, it will be of interest to transfer this method to other groups (adolescents, adults) and to other products in order to test its efficiency and properties in relation to these.

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