ACTIVITY SYSTEMS AS CULTURAL, COGNITIVE AND LINGUISTIC CONTEXTS FOR IMPROVING READING AND WRITING PRACTICES IN RURAL SCHOOLS

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Abstract.

This article aims to explore pedagogical materials that were elaborated to build bridges between the language and knowledge children develop in their homes and in school-based learning. Different studies made in rural contexts point to a considerable gap between processes of learning at home and those promoted at rural schools, a gap that causes high school failure rate in rural communities (Heredia & Bixio, 1991; Borzone & Rosemberg, 2000). In a framework that integrates socio-cultural theory and cognitive psychology, Amado (2010) explored knowledge involved in activity systems developed by peasants who live in Copacabana, a rural community in Cordoba, Argentina. On the basis of this research, ethnographically based reading books were designed for children who live in rural communities. These materials present the stories of children and recreate real events and forms of language that people employ to communicate in their speech community. The subjects, knowledge, manner of interaction and dialect used in the stories are selected in the light of previous research in the community and the learning contents proposed by the official curriculum. When knowledge that children acquire at home is not considered at school, they do not have adequate access to decontextualized knowledge. For that reason, ethnographically based books integrate different concepts, language varieties and discourse forms in order to promote children's development in different socio-cultural milieux.

Keywords: ethnographic books, activity systems, rural communities, language of learning, school knowledge

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1. INTRODUCTION

The present article aims to explore the characteristics and the significance of books for teaching reading developed in the framework of an intercultural literacy programme for the first grades of rural schools in Argentina. Various studies in rural schools and in other contexts of great social vulnerability agree that the difficulties children have in learning to read and write cause a higher failure rate than in other environments (Heredia & Bixio, 1991; Borzone & Rosemberg, 2000). According to Ezpeleta (1992), school failure in poor rural and urban sectors of Latin America has had the highest rates since the middle of the twentieth century, when the expansion of the education system started. Ezpeleta points out that this expansion has allowed more children to access schooling, but has not guaranteed their remaining in school.

Since the 1980s studies on school failure have focused on socio-cultural aspects taking into account the developmental processes of children within family and school. Results of these studies have shown a serious gap between what children learn at home and what they have to learn at school in relation to linguistic and discursive aspects of communication processes and the cognitive abilities that these processes promote (see review in Borzone & Rosemberg, 2000).

Following the afore mentioned studies, pedagogical programmes have been elaborated in which knowledge, abilities, values, beliefs, learning and interaction styles that children have developed at home, have been attended to in order to incorporate their culture into the school teaching and learning processes. The programmes are based on socio-cultural theory of child development (Vygotsky, 1964, 1988; Bruner, 1977; Wertsch, 1998 and Nelson, 1996) which considers learning as a process mediated by culture. From this perspective it is argued that, by their participation in the activity systems of their social group, children learn to use the instruments of their culture, build knowledge and develop specific abilities (Rogoff, 1990).

In rural communities, children actively take part in the family tasks which constitute activity systems and which incorporate knowledge about the environment, their resources, work techniques and the purposes of these activities (Gallegos, 2001; Gasché, 2001, 2004). In this sense, when children of rural areas enter school, they have already acquired a broad range of knowledge and abilities related to those systems. This information goes on developing throughout the life of the child but, normally, it has no relationship with the knowledge promoted by the school. Besides, it is known that early in life children learn the dialect spoken in their community and at the age of five they have command not only of the structural core of the linguistic system of their language but also of the primary discursive genres which are shaped in everyday interactions (Bakhtin, 1982; Nelson, 1996).

In Argentina, since the 1990s, a group of researchers directed by Dr. Ana María Borzone has developed an intercultural literacy programme including the design of didactic materials for children and teachers. In particular, ethnographically-based

reading books were prepared which try to build bridges between knowledge and language children acquire at home and school-based learning, and were elaborated to take into account the results of studies on socially disadvantaged sectors (Borzone, Rosember, Diuk & Amado, 2005). In all cases the books present the story of a boy or a girl as in a novel, whose daily life is similar to that of the children that will read the book at school. The subjects, knowledge, manner of interaction and dialect used in the story are selected in the light of previous research in the community and the learning contents proposed by the official curriculum Taking one example, in the frame of the intercultural literacy programme, studies were undertaken of the activity systems of Copacabana, a rural community in the north of Cordoba, State of Argentina. On the basis of these studies, ethnographically based reading books were designed for Copacabana children and for other rural schools so that children were able to learn to read and write with a material which reflects their own culture.

The present article aims to present a synthesis of the rural activities study by Amado (2010) which explored the cultural and linguistic knowledge that children acquire in the context of their up-bringing. In particular, this study describes the characteristics of the ethnographic reading books elaborated in Copacabana and analyzes the characteristics of the books as mediating tools between learning at home and at school.

2. THEORETICAL FRAMEWORK

From an ecological perspective of human development, Bronfenbrenner (1979) considers that early learning occurs in the interactions which are typical of childrearing contexts. In these interactions children begin to internalize their social world which is mediated by parents or by those who take care of them. This process, which Berger & Luckmann (1972) call *primary socialization*, is complemented by *secondary socialization*, a process that implies the internalization of other worlds, related to institutions, whose contents are related to the division of labour and the social distribution of knowledge.

This conception is complemented by Bernstein's theory (1971), which argues that the relationships between social classes and differences in educative performance originate in cultural transmission of educational inequality, which is mediated by linguistic codes that arise from social structures. For Bronfenbrenner (1979), positive interactions between two development contexts, such as home and school, increase the development potential of a person in both environments.

In different contexts, children learn through their participation in everyday situations of playing, feeding, etc. In the particular case of rural impoverished communities, children take part actively in domestic tasks and production activities that incorporate distinct routines (Rosemberg & Amado, 2007). These routines represent what Bruner (1994) calls *formats*, that is, relationships of shared activity be-

tween the child and the adult in the course of everyday interactions which are clearly structured. These learning formats vary according to culture specific models.

In turn, in the interactions between social groups and their environments each culture forms, throughout its history, its own systems of adaptation (Cole, 1996). According to González, Moll & Amanti (2005), different cultures have historically built their *funds of knowledge*, those bodies of accumulated knowledge that are activated within everyday practices in a dynamic way and that are created deliberately. These funds of knowledge are actualized in the activities performed within each culture.

From a socio-cultural perspective Vygotsky (1964, 1988) considers that the genesis of internal cognitive activity is developed in the performance of shared activities. Likewise, he highlights the mediation dimension of the activity as it requires the use of cultural tools and the participation of other people. Assuming that activity promotes development, Engeström (1987, 1999) proposes a model of activity systems which identifies different components: subject, community, mediating artefacts, object, rules and division of labour. In this model an activity is focused as a system of human action where a subject produces an object in order to get an outcome by employing tools, which mediate between the activity and the object. This activity is shared by others who form part of a community where there are rules that orient the development of the activity and particular modes of organizing the labour. In this respect, Engeström (1978) emphasizes the collective dimension of human activity.

In an intercultural programme elaborated by Gasché (2001) who worked with native Peruvian communities, production activities performed by these groups form part of the units of a pedagogical curriculum. It is in the study of the activity as a system that learning makes sense due to the fact that in the framework of the activities the abilities and the bodies of knowledge are integrated with instrumental, motivational and social mediation. This means that these systems can be characterised as systems of teaching and learning (Álvarez, 1990).

The conception of intercultural education in Gasché's programme is based on the recognition of social inequality in intercultural relationships. According to Gasché, intercultural education supposes a comprehension process between cultural universes in dialogic situation. From his perspective, activities operate like bridges between the meaning universes built by the cultures. For this reason his programme focuses on *minimum common sense*, based on the components that are shared by different cultures and that represent the fundamental requirement for the development of reciprocal comprehension processes between cultures.

Furthermore, cognitive psychology has contributed to understanding human ways of learning since it acknowledges the existence of a cognitive subject with relatively stable means of organizing information (Rivière, 1987, 1991). According to Anderson (1982), the initial stage of a skill is connected to declarative knowledge, for example, learners attend to this knowledge to perform a task. Through practice, the sequence of actions develops and the learner can perform

the task without using declarative knowledge. When a skill is proceduralized, declarative knowledge is not used and the task can be performed without concurrent conscious awareness of the actions. For Anderson, declarative knowledge develops first and procedural knowledge later. In contrast, Sun, Merrill & Peterson (2001) propose an inverse direction, from procedural to declarative knowledge. For them, the gradual acquisition of both procedural and declarative knowledge allows a subject to learn continuously from on-going experience.

Cognitive studies about human mind representations have focused on the way humans acquire knowledge about the world from different experiences and on the organization of this knowledge in mental structures or schemata (de Vega, 1984). In early childhood children develop schemata about diverse situations and frequent activities (Nelson, 1996). Schank & Abelson (1977) propose the concept of *scripts* to designate mental structures that organize general information from a set of recurrent events (Schank & Abelson, 1977). These structures include typical sequences of action which are temporally and causally related. As these scripts are built according to personal experiences, they can present general characteristics as well as particular characteristics, which are specific for the socio-cultural context in which a person develops.

For Schank & Abelson (1977), scripts include information about different components: topics, typical roles, conditions, a sequence of goal-oriented scenes and diverse sequences of action that happen within each scene. Scripts are prescriptive and explicative entities. They are prescriptive because they propose rules for action and modes of typical behaviour in certain situations that are conventional in a culture. Moreover, scripts are explicative structures because they allow categorizing and understanding events and predicting situations.

Moreover, cognitive psychology has studied mental processes; in particular, it has focused on the development of text comprehension. Early research on comprehension processes has studied the relevance of text structures. The first works were related to narrative structures and then expository genres were explored. Meyer (1975, 1985) identifies five possible structures in expository written text: description, collection, response (problem-solution), causation and comparison. The consideration of these different structures is essential for teaching practices because they describe distinct forms of organizing and communicating information associated to sciences.

3. LINGUISTIC AND CULTURAL KNOWLEDGE OF CHILDREN WHO LIVE IN A RURAL CONTEXT

According to the perspective of intercultural education, social, productive and communicative practices of every culture involve knowledge which constitutes the foundation of new learning processes (Gasché, 2001, 2004). These skills, which are closely linked to everyday activities, tend not to be considered as valid sources for school learning. Focusing on the relevance that knowledge developed at home has

for later learning processes, Amado (2010) studied those 'spontaneous concepts' in order to know their characteristics as a source for the acquisition of 'scientific concepts' (Vygotsky 1964). We also explored dialectal forms that children acquire in these contexts as well as the ecological perspective, beliefs and values (Bronfenbrenner, 1979) that they incorporate and from which they try to understand school culture.

The study included 30 adults and 36 children who performed various tasks in the activity systems of Copacabana, a rural community in the northwest of the province of Cordoba, in Argentina. The process of collecting data took two years of periodic visits to that community. The information was obtained through interviews, observation and audio and video recording of situations related to the activity systems. The analysis of data combined processes of category generation, based on procedures proposed by the constant comparison method (Glaser & Strauss, 1967) and the use of categories proposed by Gasché (ETSA, 1996). This section presents a synthesis of the results obtained in the research of Amado (2010).

3.1 Rural activities as systems of collective work

Copacabana is in a region of the highlands, and most of the peasants live in precarious houses that constitute villages distributed in different "neighbourhoods". On the main road there is a primary school, a health centre and a telephone room. There is no regular transport enabling people to travel to other communities. For the last twelve years there has been electricity but not all families can make use of this service.

In the community of Copacabana, as well as in other regions of Argentina, families perform different tasks that integrate various activity systems whose purpose is the family welfare. They include the development of different strategies of ensuring a livelihood in relation to a specific social and natural environment. Predominant activities in the community are basketwork with palm leaves, harvesting aromatic herbs, rearing goats and chicken farming.

When the members of the family perform rural activities, they assume different responsibilities and carry out various complementary tasks. It was noted that actions and roles are distributed among them according to gender, age, the potential of each member and the degree of complexity of the task or the abilities it requires. Those actions that represent certain risks are not undertaken by children or women. Thus, for example, honey collection in the woodland and the collection of palm leaves to weave baskets are tasks performed by men and male adolescents.

Children are integrated in the collective tasks with a role that is appropriate to their age and abilities. Since they are young, children know about the different roles that parents, brothers and sisters play as well as the general and specific goals of each activity. Thus, through their participation in activities that are significant for adults, children also understand the sense of their own actions associated with playing and working in the framework of a global activity.

3.2 Language in the framework of rural activities

When the members of a family are involved in a situation of joint work, they usually don't speak about the tasks they realize. They all perform actions in a coordinated way; as if they had learned in detail the dramatic script of a play through interactive formats (Bruner, 1994). Nevertheless, when tasks involve situations in which children participate, language with various functions is frequently used: to guide or correct an action, to explain a procedure, etc. These interactions guide and give meaning to the different ways for doing the tasks. According to Bernstein (1971) this use of language is related to a *restricted code*, within which speakers share assumptions and understanding on the topic; thus, meanings are context-dependent.

It was noted that, to refer to their daily activities, farmers use various expository forms, which correspond to the different expository structures described by Meyer (1985). Thus, for example, when peasants explain the risks that goats may have on the mount, they use an expository discourse of cause-consequence. And craftsmen use collection (sequential) structures when they refer to the phases of the weaving of a basket.

On the other hand, each activity system integrates not only specific knowledge and skills, but also provides a world of words to refer to resources, tools and actions that are involved in the different tasks. Every time a person performs an activity or makes a reference to it, a particular semantic field is activated that especially integrates vocabulary of the local dialectal variety. The lexis used by the inhabitants of Copacabana presents forms used in other rural regions of Argentina and some expressions which are specific to that speech community.

In particular, this lexis includes words that belong to an aboriginal substrate, such as *chancua* (broken corn), *guatán* (a bit used to break in donkeys or horses) and *churqui* (short branches), which are expressions that proceed from Quechua language. Another Quechua word is the verb *chaguar*, used by goatherds to refer to the action of milking. This term derives from *chahuay*, a Quechua expression which means "to squeeze or twist". It is used to refer to the action of squeezing or extracting any body fluid, by crushing it or twisting it.

On the other hand, in Copacabana the use of expressions that come from the Spanish conquest of Cordoba, in the 16th century is frequent. For example, children say they collect *charramasca* when they collect sticks, branches or dry leaves to light the fire. The craftsman who weaves with palm leaves explains that to make the basket he *injiere* bundle of palm between two others. The verb *injerir*, which means "to introduce one thing between two parts", is not used in urban speech.

Expressions proceeding from aboriginal substrate or from Spanish spoken during the conquest are part of a dialectal variety where the social, historical and cultural components converge. These meanings are in the context of the household tasks when the local vocabulary is used. In turn, each word activates a network of meanings that have sense in the context of an activity. In their process of primary

socialization (Berger & Luckmann 1972), children acquire the vocabulary that is closely linked to their experience and the diversity of knowledge of their natural and social environment. For Bernstein (1971), when families use a restricted code, knowledge is highly associated to context and to particular forms of significance. At school children should have access to universalistic forms of significance, related to an explicit use of language. Thus, children could use language as a system of options, according to the communicative situation.

Normally, such knowledge and the vocabulary that children employ are not used in school environments, and local dialect is often even "banished" from the classroom. To correct children when they use their community lexicon represents not only a restriction in the use of language but also a widening of social and cultural distance, which favours the failure in learning processes because children's dialect and culture are stigmatized.

3.3 Rural activities as systems that structure knowledge

In everyday interaction with adults children develop different knowledge and skills related to the activity systems. They will gradually shape their mental scripts (Schank& Abelson 1977), restructured in relation to the degree of children's participation and the guidance provided by adults or older brothers and sisters. These activities can be performed jointly by the members of a family because they share the knowledge that is necessary for its realization. From the perspective of cognitive psychology we know that information is structured as scripts or mental representations that organize data in cognitive structures and control processes of comprehension and action (Meyer 1975, 1985; Rivière, 1987, 1991).

In the context of their everyday activities peasants develop knowledge related to the tasks carried out by them. For example, farmers who are dedicated to raise animals or cereals reveal vast knowledge of the development of biological life cycles of plant and animal species that they produce. In addition, they know the relationship between these species and their natural environment as well as the various risks that may interfere with the development of life cycles, such as pests that affect corn, disease or predators that can kill livestock.

In particular, goatherds have developed a vast and diverse knowledge about animals that can attack their flock. Among them, the cougar (puma concolor), which also is called puma or American lion, is considered the main predator of goats. For that reason farmers know the habits of this feline, its ways of feeding and displacement and its mimicry strategies. In Copacabana, most of the animals are known and understood according to their relationships with the resources that the peasants produce for their livelihood.

The study of activity systems from Copacabana made it possible to distinguish the following characteristics: a) a predominance of procedural knowledge over declarative knowledge in accordance with Sun, Merrill & Peterson's theory (2001), b)

the inclusion of highly contextualized knowledge, c) the integration of many ways of access to knowledge and d) a predominance of an empirically based knowledge.

Procedural knowledge predominance. In the development of activity systems procedural knowledge usually precedes declarative knowledge. First — on the basis of observation and imitation — children carry out actions integrated into a global activity and then it is possible to enunciate them and communicate them to others. The direction of knowledge, from the procedural to the declarative, is evident in the different activities.

In addition, it was observed that some techniques typical of activities originate in practice situations and later are expressed and socialized with other members of the family and the community. As a result, in the context of activity systems, procedural knowledge acquires a specific significance as its functionality is closely linked to the realization of actions or procedures that are learned by careful observation and by carrying them out in practice. Declarative knowledge, in turn, takes different forms according to its function in the course of activities. So, it may be presented by a simple marking, an indication, a correction or a longer speech to explain or give arguments that put order on a task.

Contextualized knowledge. Knowledge in the framework of the respective activities is mainly contextualized. Adults and children not only acquire funds of knowledge built from one generation to another (González, Moll & Amanti, 2005), but also develop new knowledge in the course of these activities, which imprints a close relationship between the external activity, specific to that natural, historical and social environment, and the internal and individual activity of cognitive order.

Ways of access to knowledge. With regard to the ways of learning of different activity systems, adults and children include observation and the imitation of actions or, perhaps, verbal interactions. During the development of the activities the view of the experts, their gestures or verbal instructions guides the younger and corresponds to Rogoff's (1990) concept of 'guided participation', and Bruner's 'scaffolding' (1983). They provide the script components corresponding to the shared activity. In this sense, non verbal interactions are often more significant than verbal interchanges. This is why the act of paying special attention when children are watching and listening during a tasks performance is considered a relevant strategy in this interactive context (Paradise, 1994).

Predominance of empirical knowledge. The fact that knowledge is contextualized in the activity systems where observation predominates as a way of access to knowledge is closely linked with the empirical basis of that knowledge. Therefore, while it is a dynamic knowledge, it is not always transferable to other events. Moreover, peasants do not access knowledge by a systematic method. This marks

the main difference between *spontaneous concepts* and *scientific concepts* (Vygotsky, 1964).

Both types of concepts are related to the modes of constructing the experience by means of language, as proposed by Halliday (1993): empirical knowledge developed in the context of activity systems tends to be expressed through a *dynamic mode* of using language. Science texts focus on phenomena employing a *synoptic mode* of constructing the experience, which is based on written grammar.

Unlike spontaneous knowledge, scientific knowledge, the knowledge that school focuses on, not only uses a systematic methodology of access to knowledge but also a set of relatively stable tools, e. g. writing, which makes it possible to accumulate gradually, using different devices of an external memory (traditionally books but also in the modern age electronic devices), concepts built by a culture in a period of time.

4. ETHNOGRAPHICALLY-BASED BOOKS FOR LEARNING AT RURAL SCHOOLS

The data analyzed by Amado (2010) were also the base for designing reading books. Activity systems not only involve a wide body of knowledge and skills related to different tasks but they also establish cooperative relationships among the members of a family and particular modalities for relating to natural environment (Amado &Borzone, 2006). Those activities were included in the books and they were integrated with activity systems from other cultures.

Ethnographically-based books contain a sequence of episodes that present the life of a child who lives in a field surrounded by hills. *El libro de Santiago (The book about Santiago)* focuses on Santiago, as the main character, a boy who is starting primary school. This character is inspired by a child called Santiago, a five-year-old boy who lived in Copacabana with his family. He was the youngest child of a peasant couple who had six children. *El mundo de Zulma (Zulma's world)* tells the story of a girl from Copacabana who lives with her parents, her sister Teresa and her younger brother, a one-year-old baby. This character is also based in a real girl from Copacabana whose name was Zulma.

In both cases, families carried out different rural activities, such as rearing of goats, some sheep, pigs and hens, weaving of palm leaves and collecting aromatic herbs. We collected information about both families by observing daily situations during our visits to their houses. We audio- and video-recorded some of the situations. We also interviewed the parents, grandparents and children to know about their activities and they also told us some interesting or funny events that were included in the stories narrated in each book. Moreover, we collected information from other families that lived in the community, so we could integrate other perspectives and forms of life in the books.

When we had a sufficiently large corpus of information about the families and different popular events of Copacabana, we organized the contents structure and the episodes that formed part of each book. Then we wrote the stories over a long

period of time in which we corrected and completed the texts and consulted the peasants about the content. We also experimented with the materials in the rural school from Copacabana, working with teachers and children in the classrooms.

After this process manuscripts were read by an illustrator who drew the pictures for the episodes. *El mundo de Zulma* and *El libro de Santiago* were illustrated by different artists who visited Copacabana and were in contact with children and adults from that community. They also looked at photographs and films about families and typical working situations. Then each illustrator engaged in a long process of designing characters and their contexts. In the case of the illustrator of *El mundo de Zulma*, the illustrator tried to use a varied range of colours, textures and styles of drawing.

While books were being illustrated, we used preliminary versions of the stories in reading situations in the classroom. In this way we could complete, correct and modify the episodes trying to maintain a motivating content and a likely sequence of events. We also consider if the contents could be processed by children with or without teacher's intervention. As a result of this process, books were edited with the support of a private foundation that assists social initiatives. In 2005 *El libro de Santiago* was published, and in 2006 its workbook appeared. *El mundo de Zulma* was published in 2007, and one year later the workbook appeared.

Both reading books present a main story with events that are familiar for readers from rural communities. These stories work as narrative and cognitive contexts for developing different kinds of learning at school. The purpose of workbooks is different: they propose a linguistic and cognitive approach to the topics presented in the reading books. Through ludic activities, workbooks promote the reflection on lexical and grammatical knowledge and the development of reading comprehension and writing processes.

El libro de Santiago recreates a series of episodes experienced by the boy Santiago. The story is based on real events but they have been fictionalized. In this story, Santiago plays with his brothers and his sister Fernanda. He does some of the tasks which form part of rural practices and participates in social events with his family. And he goes to school where he can talk about his experiences and learn about different worlds and cultures.

El mundo de Zulma narrates episodes based on Zulma's and her sister's life. Zulma must take care of her younger brother and help with domestic tasks but she likes to play with one of her sisters. She also learns about life in other cultures when she reads texts at school. In this story, Zulma visits her godmother who lives in a different rural region where Zulma is able to get to know other animals and snow. Moreover, both books include expository texts, narratives and other types of texts such as poems, letters, instructions and recipes.

4.1 Characters that live in a well-known culture

Rural culture in these ethnographically-based books is presented by reference to everyday events, to the modalities of social relationships that the characters maintain, and to the particular relationship between them and nature. However, there are phenomena that represent the activity systems. These systems, such as basketry and rearing goats integrate daily actions, orient tasks and give significance to forms of relationships and to different modes of apprenticeship.

In the stories, activity systems are presented as part of the context where events occur but they also orient some characters' actions and decisions. For example the activity of basketry in *El libro de Santiago* is just a component of the scene that gives the frame for an episode that occurs in the woodland where Santiago goes to collect aromatic herbs. But in *El mundo de Zulma*, that activity forms part of an episode. In one example the story recreates some actions of the basketry that allows for the integration of activities developed in other cultures. Zulma tries to weave a small basket but she can't, so she stops that task and takes a book where she sees a picture of an Inca woman weaving in a loom. Then she reads a text about life in the Inca Empire, as can be seen in example 1.

Example 1



In a few days the basket purchaser will come to buy the baskets made by the family. Zulma's parents were weaving the palm leaves. Zulma also wanted to help and took a sewing box which her mother had started to weave. But she was so eager that she made mistakes when weaving some knots.

-I did it horribly!- she complained and as she was very angry with herself she hid the sewing box.

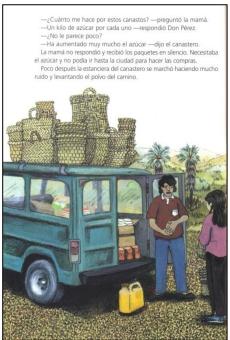
After a few minutes, Zulma was under the old carols tree, in her grandmother's house, with a magazine in her hands. As soon as she opened it, she saw pictures with aboriginals. The picture of two women and two girls weaving on a loom attracted her attention. "Life in the Inca Empire" was the title. Zulma started to read the text.

(El mundo de Zulma, "Weaving of today and yesterday", page 29)

In a second example, the story recreates actions related to social purpose of basketry: the sale and bartering of baskets made with palm leaves. In Copacabana leaves are used to exchange these products for comestible items. In this example the dialogue between Zulma's mother and the person who buys her baskets is similar to those that occur in that community, where social inequality relationships are apparent. In this case, the fictionalized episode shows actions and social relationships that are familiar to readers from that community. See example 2.

Example2





Half an hour later, a motor car was heard. It seemed to be the basket buyer's van. — Mom! Mr. Perez is coming!- Zulma let her mother know before seeing the van. Her mother, who was washing clothes in a large bowl, dried her hands and put down her bowl. She greeted Mr. Perez and took the food list out of her pocket. The basket buyer paid with money for the baskets for clothes. But he exchanged the checkmate baskets for the food mother asked from him.

- How much for these baskets? -asked the mother.
- One kilo of sugar for each basket. -answered Mr. Perez.
- Don't you think that is too little?
- The sugar price has gone up a lot.

Zulma's mother did not answer and received the packages in silence. She needed sugar and she could not go to the city to do the shopping.

(El mundo de Zulma, "A visit foretold", pages 43-44)

Furthermore, activity systems in the books can be the context for play situations. The third example shows a form of play that is forbidden by adults. Children like to break in goats but it can be dangerous for children because they can be hurt. In the example, Zulma falls down when she tries to break in one of the goats (see example 3).

Example 3



Teresa: Bring the Blanquita!

Teresa: Sit in front. I'll be on the haunches!

Zulma: Don't hit it with the stick! Zulma: Oh! My bottom hurts!

(El mundo de Zulma, "A visit foretold", page 14

4.2 Building bridges between different modalities of language

Activities recreated in the books represent contexts for developing school learning and standard language. The stories about Santiago and Zulma create cognitive contexts to promote the dialogue in class, the learning of decontextualized knowledge and, importantly, the possibility of learning standard Spanish and of using modes of language in other speech communities in comparison with those in the local one.

The intercultural perspective integrates different cultural components and supposes that interaction between cultures allows for mutual development. For that reason, the basic premise of the books described is that stories allow continuity between funds of knowledge children have built at home and knowledge provided by school. According to this premise, these books are a bridge between: a) discursive forms used at home and secondary discursive genres, b) dialect variety spoken in the community and a standard language variety, c) daily concepts related to activity systems and scientific concepts that are taught at school.

4.2.1 Bridges between discursive forms used at home and secondary discourse genres

When we studied the activity systems from Copacabana, we noted formal features of everyday speech related to those activities. These discourse forms can be identified as primary speech genres (Bakhtin, 1982). According to Bakhtin, these genres are built in everyday speech and involve less complex and organized cultural communication than secondary forms. Most of the recorded speech referred to the rearing of goats, characteristics of autochthonous birds, medicinal use of herbs, the animals that can attack a herd, such as lions, foxes or mountain lions.

We included some of these recorded speeches in the stories of the reading books. Some of them have the structure of expository texts and others have a narrative organization. These speeches were modified in some way to assimilate their form to secondary discourse genres, whose organization is more complex. So, in these cases, the inclusion of familiar topics promotes a transition process from a cultural contextualization to a linguistic and cognitive decontextualization. This aspect can be illustrated by the progression from the narrative of example 4 to the texts of example 6 (see example 4, 5 and 6).

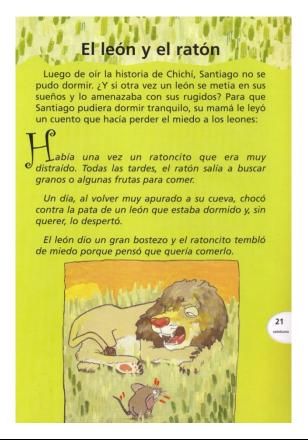


In the chapter "Noises in the farmyard", Santiago's uncle tells an anecdote about a cougar

Once I was sleeping and I was woken up by the bleat of the goats. I took the shot-gun and went to the farmyard. When I arrived there I shone a torch and I saw it: the lion was next to the gate. I realized it had killed a kid.

So I tried to fire the shotgun but the trigger stuck. While I was trying to repair it, the despicable got nearer to the gate. Then it stopped, looked at me, turned and ran away.

(El libro de Santiago, pages 19 and 20)



After listening to his uncle's narrative, his mother read him a story.

The lion and the mouse

After listening to uncle Chichí's anecdote, Santiago couldn't sleep. What would happen if a lion appeared again in his dreams and threatened him with its roars? Santiago's mother read him a short story, so he could overcome his fears and sleep peacefully.

"Once upon a time there was a little mouse who was absent-minded. Every evening the mouse went to get grains or some fruits to eat.

One day, while it returned very quickly to its cave, it knocked into the leg of a lion that was sleeping and accidentally woke up the lion.

The lion gave a big yawn and the little mouse began to tremble because it thought the lion wanted to eat him (...)"

(El libro de Santiago, page 21)



Santiago reads a book about felines.

What big teeth you have!

Every animal needs food in order to survive. Some animals only eat vegetables. Others hunt animals for food.

Among the animals that eat other animals are the felines. For example, one that is well-known is the cat, which eats mice.

The cougar, the jaguar, the tiger, the lion and other relatives also belong to the feline family.

(El libro de Santiago, page 25)

This sequence of texts begins with a story based on an event from the rural context, which is familiar to readers, and then proposes the exploration of other texts that maintain the topic or some component of the story, such as the cougar or American lion. After reading about the experience of a peasant with a cougar that killed one of his goats, children get to know the story of the lion and the mouse, based on Aesop's fable, which is not familiar to their community. In this case there is an African lion, and the text is a fictional narrative with a canonic organization that contributes to developing narrative schemes.

In the third step, expository texts about felines present, from a scientific perspective, a topic that is known in Copacabana. The text of example 6 includes a

classification and the use of the word "felines", which presupposes relationships of inclusion between concepts. Moreover, in the case of the text in example 7, it focuses on the hunting mode of the cougar.

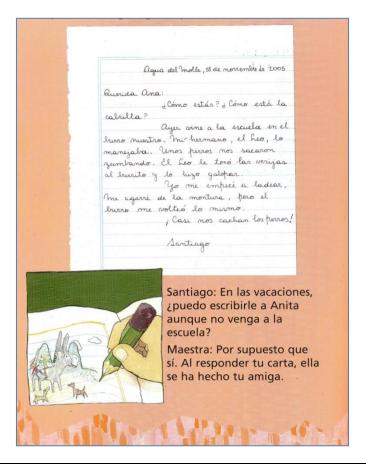
Its information is known by children from Copacabana through adult talk but the textual organization is different from the discourse forms that the adults produce. This expository text shows a syntactic structure more precise than oral speech and hyponyms, such as *prey* or *felines*, whose semantic field include other words. The text also contains terms such as "agazapado" (crouched), which is not usual in Spanish everyday speech.

These terms, which belong to written texts, can be acquired by children of rural communities when they are presented in linguistically familiar contexts. The frequent use of these terms and the exploration of the expository structure in class can much improve children's linguistic and discursive performance. As a consequence of the inclusion of narrative and expository texts and other cognitive instruments, such as letters or news, children can develop a decontextualized point of view and integrate it into local perspectives about different social and natural phenomena. Rather than movement form one perspective to another – with the implicit abandoning of the local – the emphasis is on integration.

4.2.2 Bridges between dialect spoken in the community and the standard variety

In ethnographically-based books, the narrator employs standard Spanish. On the other hand, characters that live in the rural community use lexical forms that are typical of the dialectal variety of Copacabana and other rural regions in Argentina. thus, children of rural communities can read for the first time words that are frequently heard in their homes, for example: cabrilla(dialect form for little goat), ladear(dialect form for to lean to one side) and cachar (dialect form for to catch), which appear in example (7) that shows a rough draft of the familiar letter Santiago writes to his friend Anita, who lives in another rural region. This dialectal vocabulary makes it possible to recreate children's speech, so that when they read the letter they can build a coherent representation of the text. (See example 7).

Example 7



Agua del Molle, 18th november 2005

Dear Ana,

How are you? How is your little goat?

Yesterday I came to school on our donkey. My brother Leo leaded it. Some dogs ran to attack us. Leo touched the little donkey and made it gallop.

I began to $\mbox{\it lean}$ to $\mbox{\it one}$ side. I held the saddle, but the donkey knocked me over.

We were almost caught by the dogs!

El libro de Santiago, page 92

Felines are well known for their form of hunting. For example, the cougar goes to hunt at sunset when there is little light. It walks a lot till it finds its prey: rheas, deer or viscacha rats.

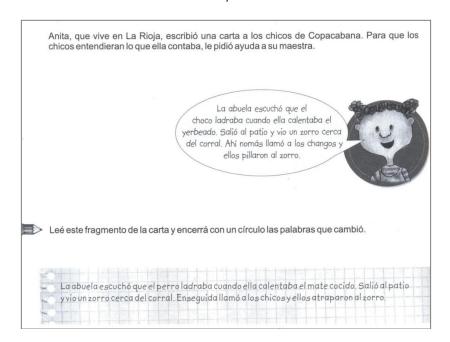
The cougar finds its prey in the darkness because its sight is very powerful.

So it approaches to them crouched, belly to the ground. Then the cougar runs a short distance race and springs at the prey to kill it.

(El libro de Santiago, page 26)

Moreover, *El mundo de Zulma* presents dialectal forms that are spoken in another rural region in Cordoba. While Zulma visits her godmother, Doña Jovita, she learns different customs and the words used in another regional variety. The terms used by Doña Jovita are focused on and analyzed in the workbook exercises.

In both workbooks dialect vocabulary of rural communities is involved in different cognitive tasks that tend to promote the systematization and the reflection on regional varieties, the comparison between dialects and standard language, and the translation from regional forms to standard variety. In the exercises of example 8 one event is presented in two texts using oral language and written language. The speech balloon presents a text, where Anita tells about an event, which includes lexis that is spoken in the dialect of another rural region in Argentina. The text of the letter of example 8 presents the same event employing the standard variety. In this case, students must find out words of both language varieties and in the following exercise they have to relate each dialect term to the standard one.



¿Qué palabras dijo Anita?	¿Qué palabras escribió?
	mate cocido
pillaron	b.
	chicos
choco	

Anita, who lives in La Rioja, wrote a letter for children from Copacabana. Her teacher helped her to write it so children can understand what she told them.

Speech balloon: My grandmother heard the dogs(chocos) bark when she was heating the mate tea (yerbeado). She went out to the courtyard and saw a fox near the farmyard. Immediately(ahínomás) she called to the boys(changos) and they caught(pillaron) the fox.

→ Read this fragment of the letter and make circle the words she changed.

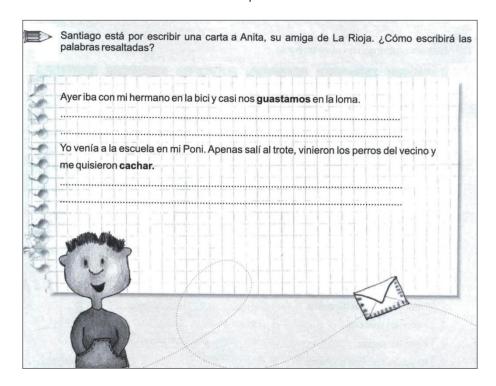
"My grandmother heard the **dogs** (perro) barking when she was heating the **mate tea** (mate cocido). She went out to the courtyard and saw a fox near the farmyard. **Immediately** (enseguida) she called the **boys** (chicos) and they **caught** (atraparon) the fox."

→ Complete the following table using the words that Anita used.

Which words did Anita say?	Which words did Anita write?
	mate cocido (mate tea)
caught (pillaron)	
caught (philaron)	
	chicos (boys)
Choco (dog)	

(El mundo de Zulma, workbook, page 106)

These exercises focus on words which promote reflection about variety use. It is expected that teachers guide that reflection by including a clear explanation with other examples. In the exercise of example (9) children have to replace the words of their own dialect by standard forms. By doing this exercise students can learn that vocabulary changes according to language variety and that they use standard variety in written texts. The word *guastar* is used by people of Copacabana when they mean "to fall" (*caer*, in standard Spanish) and the word *cachar* is used for "to catch" (*atrapar*, in standard Spanish). In the rural region where Anita lives people use the term *pillar* for "to catch". (See example 9.)



→ Santiago is going to write a letter to Anita, his friend from La Rioja. How is he going to write the words in bold?

Yesterday I rode the bike with my brother and we almost **fell down** the hill. I came to school in my Poni. As soon as it began to trot, our neighbour's dogs appeared and wanted to **catch** us.

(El mundo de Zulma, workbook, page 107)

These exercises tend to promote the development of communicative competence: dialect terms are not discarded but integrated as part of linguistic reflection. It is necessary that children of rural context know that some words they use are spoken only in their speech community and that there are standards terms to express the same meaning. They also have to learn to employ one variety or the other according to the communicative context.

Furthermore, in the reading books dialect lexis appears in different discursive contexts: dialogues, story-telling or familiar letters. The premise is that regional words aren't isolated but inserted in texts. Narrated stories include utterances from real contexts of communication that integrate not only funds of knowledge

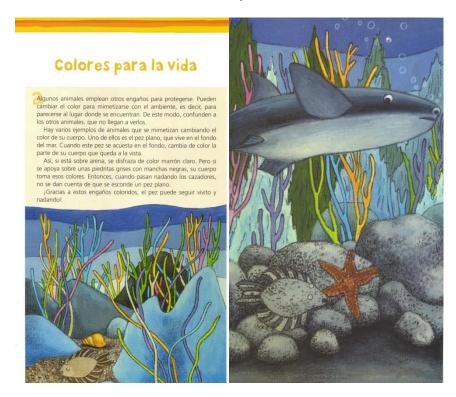
involved in activity systems but also forms of everyday speech, and ways of focusing on familiar events that are the starting point for approaching scientific discourse and different modes of focusing on unknown realities. In this way, the stories of Santiago and Zulma create narrative contexts for improving the process of speaking, reading and writing and, simultaneously, promoting the development of decontextualized thought and language.

4.2.3 Bridges between spontaneous concepts and scientific concepts

By studying the activity systems of Copacabana, we found out that children from this community acquire extensive knowledge about their social and natural environment (Amado & Borzone, 2003, Amado, 2010). By means of their participation in different daily tasks, children acquire spontaneous concepts, which develop through practical activity and immediate social interaction (Vygotsky, 1988). According to Amado & Borzone (2011), knowledge children acquire within rural activity systems constitutes the necessary base for school learning. However, it is not sufficient for the comprehension of written texts and for learning from them. This previous knowledge is highly contextualized and diverse but without systematization. If teachers consider that knowledge as a valuable starting point, they can orient children to develop it and to integrate it with concepts that are constructed by sciences and that pre-suppose a scientific perspective.

Thus, it is essential that teacher intervention focuses on strategies for comprehending and producing written texts. For that reason, ethnographically-based books include short expository texts about topics that are familiar to children but that are written from a scientific perspective, as we saw before. As children from Copacabana have acquired a lot of information about plants and animals in their context of development, the books present expository texts that explain scientific concepts related to that information. Example 10 shows a text about *mimesis*, where the flatfish is presented, a fish which can camouflage itself on the ocean floor.

Example 10



Colours for living

Some animals use other tricks to protect themselves. They can change their colour to mimic their backgrounds, that is, to resemble the place where they are. In this way, they confuse other animals, which can't see them.

There are a lot of animals that can mimic by changing their body colour. One of them is the flatfish, which lives in the deep sea. When this fish is located on the bottom of the sea, it changes the colour in the part of the body that is within sight. So, if it is on the sand, it becomes light brown. But if it is on little stones in grey and black, its body becomes grey and black. Then, when hunters swim past it, they don't realize there is a flatfish hidden there.

Thanks to these colourful tricks, this fish can be alive and swimming!

(El mundo de Zulma, pages 68 and 69)

Adults and children from Copacabana know some animals mimic forms or colours to avoid being attacked by other animals, but they do not focus on those cases as

examples of general phenomena. Amado (2010) recognizes that peasants talk about particular events or situations related to nature but they don't normally generalize these observations.

In the same way, their children know that foxes hunt hens, cougars can attack goats because they eat other animals, but they don't know concepts that are abstract and allow for generalization, such as *prey, predator, trophic chains, camouflage or mimesis*. Scientific concepts constitute an explanatory system that is different from the explanatory system developed by peasants in their community (Amado & Borzone, 2012). For that reason it is necessary that children who live in rural communities like Copacabana acquire a scientific perspective and use it to conceptualize their own knowledge. Each scientific word pre-supposes a world of concepts, ways of focusing reality and also a systematic way of acquiring knowledge.

In this sense, ethnographically-based books tend to promote a zone of proximal development (Vygotsky, 1988) in classes of rural schools: children and teachers work and think together. Knowledge acquired in the context of activity systems is limited by particular forms of significance mediated by the use of a restricted code (Bernstein, 1971), which includes every day concepts (Vygostky, 1964) and a dynamic mode of language to refer to experience (Halliday, 1993). The purpose of these books is to become semiotic tools which orient an effective continuity to formal knowledge, related to scientific concepts, expressed through an elaborate code and a synoptic mode of constructing phenomena by means of language.

5. CONCLUSIONS

The study of activity systems showed that it is a possible approach not only to knowledge involved in social and cultural community practices but also to the essence and form of such knowledge. Likewise, the analysis of the activities in terms of human development and learning formats makes it possible to argue against educational practices which are separated from the cultural world of children. It is possible to say that, in the framework of an education designed on the basis of children's culture, the study of the language can be carried out in a new way and writing and texts can serve as cognitive and cultural tools for learning.

The distance between the children's everyday concepts and school concepts emerges from the nature of the knowledge involved in activity systems, which are characterized by: the prevalence of procedural knowledge over declarative one, the development of contextualized and empirical knowledge, and different modes of access to knowledge through direct experience, practice and participation in events, which implies a dynamic use of linguistic resources. In this sense, the intercultural perspective in education is not limited to the simple inclusion of items of children's culture in the school curriculum but it requires, first, knowing that culture in terms of activity systems.

According to this perspective, ethnographically-based books contribute to the development of a situated education. Children's dialect is valued as the foundation to acquire standard Spanish and formal knowledge promoted at school. When children of rural communities read these books they can identify with the characters, build mental representations of the events narrated and talk about the stories. However, it is essential that teachers guide children to develop their contextual knowledge and dialect variety. This means that ethnographically-based books can function as a tool for promoting learning in rural schools when teachers are conscious that children have acquired funds of knowledge in their homes (González, Moll & Amanti, 2005), which should be the basis to have access to scientific knowledge and different modes of employing language.

According to Amado & Borzone (2011) previous knowledge which children build through their participation in activity systems is necessary but not sufficient for reading written text. Children of rural schools perform poorly in reading comprehension if they have not developed cognitive abilities that allow for the making of correct inferences. For that reason, teachers should instruct them properly because reading and writing are not automatic activities but complex processes that must be systematically taught. A future study will focus on the methodology rural teachers develop to work with ethnographically-based books in order to guide children to read and write through co-constructive processes.

By means of ethnographically-based books children can activate the spontaneous knowledge acquired in their ecological environment and, with the guidance of teachers, reflect on that knowledge in a systematic way, relate them to concepts that are further away from their context and acquire them through a process of cognitive de-contextualization. Thus, the meaning of intercultural education does not imply discarding some forms of knowledge and language but the integration and understanding of different concepts, language varieties and discourse forms. Undoubtedly, the challenge of this century is to understand the relevance of intercultural education, that is, to consider diversity in human experience as a great opportunity to promote children's development in every socio-cultural environment.

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