

Frequent features of shared reading interactions between adults and 3- to 6-years old children from a small Colombian city

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#### Abstract

This study describes actions and linguistic productions in adult – preschool child shared reading interactions in the city of Chía, Colombia, in search of the emergence of children initiative actions and linguistic acts during this interaction. It analyzes six (6) videotaped and transcript shared reading interactions between adult and children from 3- to 6-years old taken in the Cityhall Bookfair, and 2405 adults' and children's interventions in those dyadic interactions. Results showed a main tendency of more actions than linguistic productions in adults and children, more initiative actions in adult and child in each dyad and more reactive linguistic productions in the dyad's child, and a less frequent tendency of more adult interventions, related to more initiative actions and more linguistic productions in child and adult, independently from child's age. The interactions are discussed in light of emergence of initiative actions in preschool children and discursive acts in child-adult interaction, initiated by children or by adults.

#### Key Words

Shared reading, adult-child interactions, preschoolers, communicative acts

## **Frequent features of shared reading interactions between adults and 3- to 6-years old children from a small Colombian city**

### **Introduction**

This study explores preschool children and adult's frequent actions in shared reading. Shared reading is a social interaction between an adult and a child around observing a book, where both participants use oral and written language. This interaction is a knowledge transition activity with its own dynamic in adult – preschool child dyad (Arias & Flórez, 2011). Shared reading is acknowledged as a learning activity that promote world knowledge, knowledge on reading's conventions, ability to relate reading content with prior schemes and experiences, inferential reasoning, better future school performance and children inclusion in important social contexts (Bus, 2002; Collins, Svensson & Mahony, 2005; Cuervo, Flórez & Acero, 2004; Flórez, Restrepo & Schwanenflugel, 2007; Flórez, Arias & Castro, 2010; Pankratz, Plante, Vance & Insalaco, 2007; Scarborough, 2002; Wasik & Bond, 2001; Wells, 1986).

The dynamics of interaction in dyad during adult- child shared reading involve action dynamics in actions performed by child or by adult, and discursive and linguistic resources during this activity. Dynamics of participants' actions in shared reading is present in the growth of attachment and affective bonds between adult and child (Arias, 2013; Arias & Hederich, 2010; Bus, 2002), the child development phase and adult educational level (Arias, 2013; Flórez, et. al., 2007; Ferreiro, 2007; Leseman & De Jong, 1998), spontaneous tendency in many adults to accommodate his/her action to child's actions and developmental levels -related to consolidation of emotion expression and cognitive mediations, advances in literacy knowledge and levels of empathy between adult and child at three years-old age- (Aram & Aviram, 2009; Bornstein & Tamis-LeMonda, 2004; Witherington, Campos & Hertenstein, 2004) and beliefs of adult on children abilities and valued cultural activities (Collins, Svensson & Mahony, 2005; Flórez, Restrepo & Schwanenflugel, 2009; Kugelmass & Ross-Bernstein, 2000; Martini & Sénéchal, 2012; Rodriguez, Hines & Montiel, 2009).

There is also a changing emphasis in interaction between adults and children from 2- to 4-years old - with a clearer adult guide and dominance-, when they become children aged 4 years-old and beyond -with a more sophisticated children participation, in the cases where this activity is performed frequently- (de Brito Castilho Wesseling & Lachmann, 2012; see also Whitehurst, Arnold, Epstein, Angell, Smith & Fischel, 1994), changes related to adult and child's assumed role in interaction -teachers tend to have more structured interaction than parents- (Sun & Rao, 2012), and the individual and dyad differences in focus of shared reading: focus on the other person (adult or child), on the book, on drawings and graphic features, and focus on narrated story content (Arias, 2013; Arias & Hederich, 2010, these focuses come from studies with dyads of adults and 4 year-old children in Bogotá, Colombia; see also Flórez, Torrado & Arias, 2006).

In addition, Moore and Wade (1997) and Wade and Moore (1996) showed that in dyads with and without shared reading habit located the children besides or in the adult's lap, adult pointed illustrations to the child, adult made modifications to some text points, adult pointed some words in the text, and adult and child related text content with their own experiences. In dyads with shared reading habit adult reads the entire text to the child, adult and child made a true conversation on book, child has more opportunities to formulate predictions in shared reading with an adult, and adult point to written lines with illustrations.

The discursive and linguistic resources during shared reading involves kind of complex linguistic acts that show interaction among adult discourse and child's abilities and advance in different knowledge domains (Dunn & Brophy, 2005; Lísina, 1988; Karmiloff & Karmiloff-Smith, 2002), discourse emphasis on repeated or new topics in conversation that differ in adult – child interactions from different sociocultural groups (González, 2009), emerging communicative complex acts between 3- and 6-years old age in children,

like to explain, to argue, to state points of view, to narrate, and other abilities to help second order (Arcidiacono & Perret-Clermont, 2009; Frazier, Gelman & Wellman, 2009; Jipson & Callanan, 2003; Justice & Kandreavek, 2003; Lisina, 1998; MacArthur, Adamson & Deckner, 2005), references to mental states (Dunn & Brophy, 2005; Lohmann, Tomasello & Meyer, 2005) and kind of questions to enrich vocabulary and explanation abilities like *how* and *why* questions (Blewitt, Rump, Shealy & Cook, 2009; Van Kleeck, 2008; Van Kleeck, Guillian, Hamilton & McGrath, 1997; Walsh & Blewitt, 2006).

With this framework, to have a complete account of shared reading acts in adults and children between 3- and 6-years old dyads, it is important to have account of the factors indicated previously, that come from studies on dynamics of interaction and complex linguistic and discursive acts. Additionally, there are two techniques in registering shared reading acts: continue course registers (Frazier, Gelman & Wellman, 2009; Jipson & Callanan, 2003; Sun & Rao, 2012; Zucker, Justice & Piasta, 2009) or pre-made instruments to guide observations (Arias, 2013; Arias & Hederich, 2010; Flórez, Torrado & Arias, 2006; Wade & Moore, 2000).

In these studies, pre-made instruments usually are based just on theoretical criterions, but give a profile on focused actions, giving good frameworks on, for example, some individual differences on the activity (Arias, 2013). In opposition, transcription of social interaction sequences as a method usually captures the adult and child initiating or responding actions, taking longer time and much more cost, but allowing the researcher to have a longer inventory of actions that could be performed at specific situations (Frazier, Gelman & Wellman, 2009).

Therefore, the goal of this study was to collect information on which actions are common in adult – child (3 to 5-years old) dyads from Chía, a small Colombian city close to northern Bogotá urban area, registering on them social interaction dynamics and communicative-linguistic acts. It will be done with methods which are close to interaction transcriptions, but in order to enrich future premade instruments with validated data on Colombian local population.

## **Method**

### *Design and kind of research*

This research has a descriptive reach: it describes and organizes actions in children from 3- to 6-years old and in adults with them in shared reading single sessions, with some explorations on the relationship among the kind of actions performed by adult and child and their interaction dynamics. This study is observational in its kind of empirical inquiry: it uses natural systematic observation, registering child and adult actions performed during spontaneous adult-child (3- to 6-year old children) shared reading acts in a small bookfair opened to people on weekends in Chía, Colombia.

This research uses a cross – sectional design too, observing child-adult dyads in one cohort. The analyses are quantitative, with calculus on frequency, time and type or interventions made by children (3 to 6-year old) and adults in one shared reading session.

### *Observation units and participants*

Because the focus of this study was the kind of actions performed by adult and child in the dyad during shared reading interactions, 2405 adults' and children's interventions are analyzed. All these interventions come from observation of interactions and child and adult actions from 6 dyads of adults and a 3-, 4-, 5- or 6-year old children who assisted to Chía City Hall Public and Open Bookfair in Chía, Colombia, in weekends during April of 2013. All adults who participated as part of adult – child dyads read and signed

informed consent form allowing the use of the data registered about interactions among them and children for analyses.

### *Procedure*

Observations of dyads in shared reading single sessions were made in weekend days on April of 2013. Each session was video-taped, with previous authorization of the adult in each adult-child observed dyad. Once the adult authorizes video-taping of the interaction, the researcher informs him or her about what is the study about, and ask to the adult in Spanish (the native language of all participants) to “Observe books with your child as you normally do. Please, try to ignore that we are video-taping”.

The dyads, then, were video-taped in the situation and their members were allowed to interact freely in shared reading or sharing books. Each videotaped shared reading session stopped when the dyad quits the space or when their members decided to change the activity. Video-taped interactions were classified and translated to a DVD video format in order to preserve its quality.

### *Data processing and analysis*

Each video-recorded interaction is transcript. Two psychology undergraduate students observe the entire videos of adult-child dyad interactions and transcript them in a Microsoft Excel © calculus sheet. Both observers are asked to look and register these sequences transcribing each action and verbalization in two columns: one for the adult and one for the child. Each action is marked with its beginning time at its finishing time for accuracy in interaction transcription.

To assure the accuracy in transcriptions, the researcher looked to each transcript interaction and marks when there were errors, mistakes or omissions in transcription. If there are no errors, mistakes or omissions, the transcript is left in a file to analyze. If there are errors, mistakes or omissions, the transcript is given back to the observer to correct it, and it is left for analysis only when is approved for this by the researcher.

The researcher created a system of codes to classify the observed interactions (table 1). Two assistants (psychology undergraduate students coursing sixth semester, who previously worked with researcher in interaction transcripts) worked with the researcher adjusting the time of children and adults actions during interactions, in order to reflect when an actions initiates a new point or when it just follow the line performed by the other, as shown in the example in table 2. The same two assistants coded all the transcript interactions using the categories in table 1 and following the researcher directions.

Table 1. Categories created to classify adult and child actions in each dyad videotape.

<b>ANALYSES CATEGORIES AND CODES FOR CATEGORIES</b>
<b><i>Initiative in interaction (0)</i></b>
<i>Initiative act (I), Reactive act ( R)</i>
<b><i>Dynamics of interaction (1)</i></b>
<i>Accommodation of adult action to child's level (1.1):</i> Accomodation according to child's age (1.1.1), Accomodation according to child's previous action (1.1.2)
<i>Adult as a communicative model and its relationship with valued actions (1.2):</i> Beliefs (1.2.1), Values (1.2.2), Confidence on what is more appropriate for the child (1.2.3)

*Dyad behaviors with or without shared reading habit (1.3):* Location of the child on adult's lap (1.3.1), Location of the child at adult's side (1.3.2), Intentional modifications to text (1.3.3), Pointing to words in text (1.3.4), Comments related to previous own experiences (1.3.5)

*Dyad behaviors with shared reading habit (1.4):* Formulation of predictions (to anticipate) (1.4.1), Authentic conversations on what is read (1.4.2), Point to written lines in text (1.4.3)

*Shared reading and parents or family features (1.5)*

*Focus on the activity (1.6):* the book (1.6.1), the other (adult or child) (1.6.2), reading content (1.6.2), illustration (graphic material) (1.6.2)

*Adult's role in interaction with the child (1.7):* Guide (show how to do things and move child's hands directing) (1.7.1), Dialogue partner (conversation pair) (1.7.2), Prevailing utterance producer (gives directions respecting child's following) (1.7.3), Animator (uses verbal and gestual expression to stimulate the child to look to, or to do, something) (1.7.4)

### ***Kind of linguistic resources of child and adult during interaction (2)***

*Linguistic abilities complexity (2.1):* Reflected abilities (2.1.1), Child's utterances complexity (2.1.2)

*Different discursive emphasis in adults guide (2.2):* Reproductive (emphasis on repetition on done actions or uttered expressions) (2.2.1), With new elaboration (emphasis on to say or to do new things) (2.2.2)

*Correspondence in child's discourse abilities and adult actions (2.3)*

*Discursive, linguistic and communicative acts in shared reading (2.4):* narration (2.4.1), comment (2.4.2), exclamation (2.4.3), description (2.4.4), question (2.4.5), prediction (anticipation) (2.4.6), explanation (2.4.7), argumentation (2.4.8)

*Questions that prompt knowledge (2.5):* why (2.5.1), how (2.5.2), when (2.5.3), where (2.5.4), what for (2.5.5), who (2.5.6), what (2.5.7)

TIME	ADULT (A)		CHILD (C)	
	ACTION	LINGUISTIC PRODUCTION	ACTION	LINGUISTIC PRODUCTION
00:00:00			C observes A frowning	
00:00:01				
00:00:02	A turns the book page		C observes the book held by A frowning	
00:00:03				
00:00:04				
00:00:05				
00:00:06	A looks at her side			

Fig 1. Example of transcript adjusted to time of start and finishing actions.

## **Results**

These results are shown in two sections. In the first one, descriptive results and general patterns on children's and adults' interventions are shown. In the second one, patterns of interactions' categories and their association with other factors or variables are analyzed.

*Descriptive results on children' and adults' interventions*

Table 2 shows how are children's and adults' participations in interaction during shared reading. Dyads CH1 and CH3 show less interventions in both participants, CH2 have, in comparison, a medium level of interventions and CH4, CH5 and CH6 show more interventions in both participants during interaction.

Table 2. Number of children's and adults' interventions in the dyads.

DYAD	TOTAL: ADULT ACTIONS	TOTAL: ADULT LINGUISTIC PRODUCTIONS	TOTAL: ADULT INTERVENTIONS	TOTAL: CHILD ACTIONS	TOTAL: CHILD'S LINGUISTIC PRODUCTIONS	TOTAL: CHILD'S INTERVENTIONS	TOTAL: DYAD INTERVENTIONS
CH1	29	2	31	34	5	39	70
CH2	60	16	76	108	9	117	193
CH3	21	9	30	32	4	36	66
CH4	84	13	97	104	13	117	214
CH5	103	20	123	104	10	114	237
CH6	111	105	216	39	9	48	264

When we separate child's and adult's interventions, we can see if children or adults have more participation or contribute with more actions in the dyad interaction. It shows us different patterns among dyads: the almost equal number of child and adult interventions, the prevailing adult interventions (when there were more adult's interventions than child's interventions) and the prevailing child's interventions.

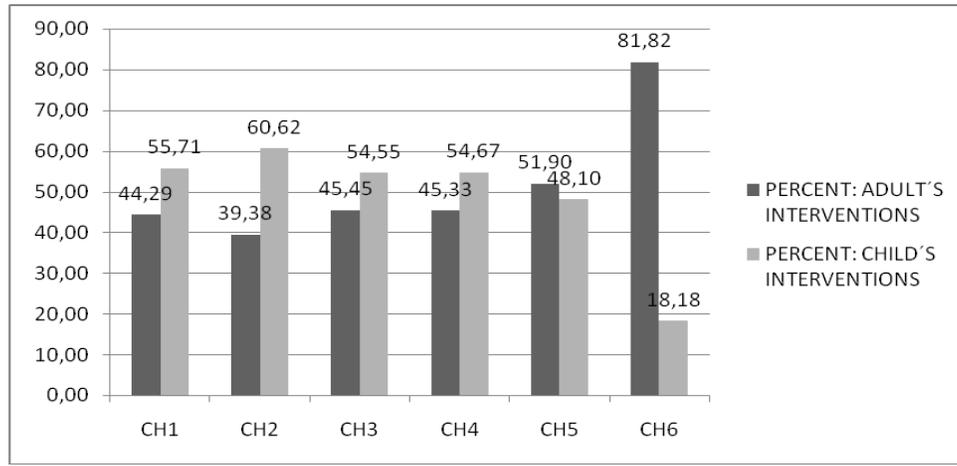
Dyads CH1 and CH5 are in the category of almost equal number of child's and adult's interventions. However, CH1 showed, in general terms, much less interventions than CH5. On the other hand, CH2, CH3 and CH4 showed the "prevailing child's interventions" pattern, but, as it happens with CH1 and CH5 dyads, CH3 had much less interventions than CH2 and CH4 in all dyad interventions. Finally, the "prevailing adult's intervention" pattern is present in dyad CH6: adult actions are almost three times the number of child's interventions.

We separate too the interventions in adult and child as actions and linguistic productions, as can be seen in table 1 as adult's actions, adult linguistic productions, child's actions and child's linguistic productions. Adult's actions are much more than adult's linguistic productions, and the relation is the same in child's actions and child's linguistic productions. Only the adult in CH6 dyad had almost the same number of linguistic productions and actions.

Child's actions and linguistic productions have the same behavior, as previously stated, with a lower ratio of actions – linguistic productions in children from CH1, CH3 and CH6 dyads. These children present this smaller ratio because they presented fewer interventions in general than the children in other dyads.

In a more specific analysis, we calculate the child's and adult's percent of contribution to all dyad intervention, as shown in figure 1. It shows, in a more accurate way than table 1, that dyads CH1, CH3, CH4

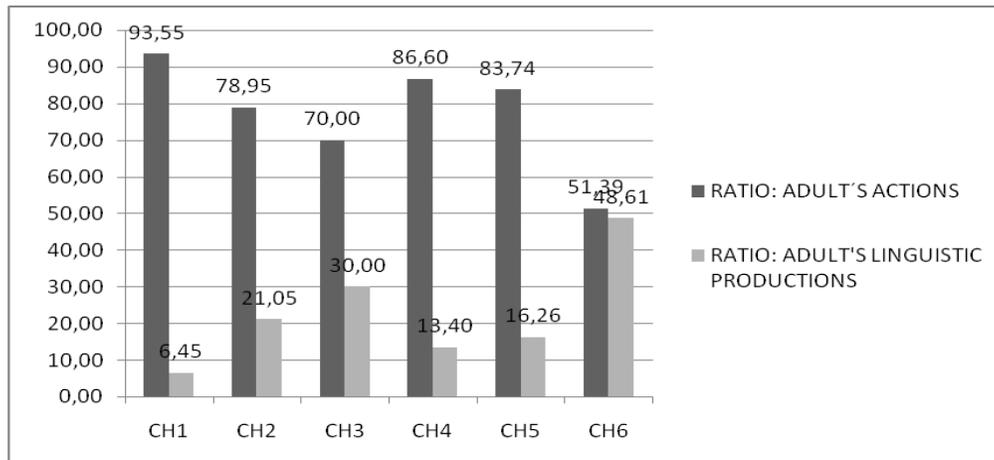
and CH5 show less difference in the number of adult's and child's interventions than CH2 and CH6, which show more difference in the number of child's and adult's interventions.



**Fig. 2.** Percent of adult's and child's interventions

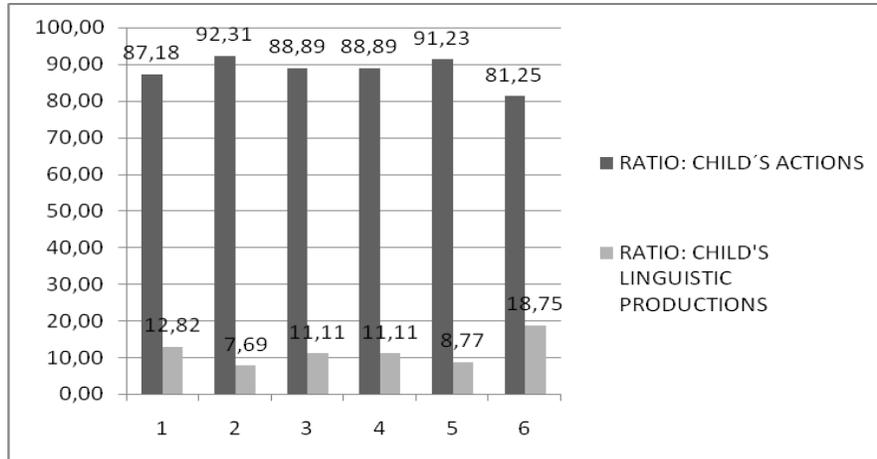
A closer look into these data shows us finer patterns: CH1, CH3 and CH4 show a higher percentage of child's interventions, surpassing the number of adult intervention in almost a 10 %. CH 5 got few differences in adult's and child's intervention percentages, but adults have more interventions than children, surpassing them in almost a 3 %. CH2 show a higher percentage of child's interventions too, but these interventions surpassed adult's in more than 20 %. And CH6 show that adult's interventions surpassed child's in more than 60 %.

In the same way, we calculate actions and linguistic productions contribution to all the interventions in each child and adult of the dyads. Figure 2 shows, again, the clear higher number of adult's actions compared with adult's language productions in dyads CH1 to CH5: they oscillate between 70 % and 93,55 % of adult interventions. CH6 shows other pattern of results: it presents more adult's actions than adult's linguistic productions, but the firsts surpassed the seconds just by 2,7 %.



**Fig. 3.** Adults' actions / linguistic productions ratio in the dyads

In the case of children, the pattern is similar than in adults, as shown in figure 3: child's actions are in all dyads between 81,25 % and 91,31% of child's total interventions. In accordance with this, child's linguistic productions are between 7,69% and 18,75% of all children interventions in their dyads.



**Fig. 4.** Children's actions / linguistic productions ratio in the dyads.

Additionally, table 3 show the initiative / responsive intervention ratios in children and adults actions and linguistic productions. In CH1, CH2, CH3, CH4 and CH6, initiative are more than responsive in adult actions, in a small measure (as in CH1, CH2 or CH3) or in a big measure (as in CH4 or CH6). In adults' linguistic productions, CH2, CH3, CH4, CH5 and CH6 were more initiative interventions than responsive, in small measure (like in CH2, CH3, CH4 and CH5) or in large measure (like in CH6). CH1 showed the inverse pattern, but with just one linguistic production.

**Table 3.** Adults' and children's initiative (I) o reactive (R) interventions' ratio in their actions and linguistic productions

Dyad	Adult		Child	
	Action (I/R proportion)	Linguistic production (I/R proportion)	Action (I/R proportion)	Linguistic production (I/R proportion)
CH1	7 a 4	0 a 1	7 a 16	1 a 3
CH2	34 a 19	12 a 4	67 a 21	3 a 6
CH3	18 a 3	6 a 3	31 a 1	4 a 0
CH4	74 a 10	12 a 1	92 a 12	5 a 8
CH5	11 a 26	17 a 3	75 a 29	10 a 0
CH6	110 a 0	97 a 8	17 a 22	2 a 7

Children's actions showed the same tendency: a higher number of initiative interventions in CH2, CH3, CH4, CH5 y CH6, all of them in a big measure. CH1 show the opposite pattern in a small proportion. This panorama is less uniform in child's linguistic productions: CH3 and CH5 have more initiative linguistic productions, and CH1, CH2 CH4 and CH6 have more responsive linguistic productions (table 4).

A synthesis of all these descriptive results can be seen at table 4. This table shows in CH1 prevalent actions as initiative actions with a low total number of child and adult participations in the interactions, but

with some equilibrium in the number of child's and adult's interventions. CH3 had a similar tendency, but differing from CH1 in a higher number of participations in child than in adult. CH5 showed to be similar too with CH1, but with a difference: with a high total number of child's and adult's interventions during the interaction.

Table 4. Synthesis of descriptive results.

Dyad	Number of adult and child actions	Adult - children participation ratio	Adult actions / linguistic productions ratio	Child actions / linguistic production ratio	Kind of adult's interventions	Kind of child's interventions
CH1	Low	Equilibrated (child 3% more)	Action prevalence (40% more)	Action prevalence (50 % more)	Initiative action; reactive linguistic production	Initiative action; reactive linguistic production
CH2	Medium	Child prevalence (20% more)	Action prevalence (40% more)	Action prevalence (50 % more)	Initiative action; initiative linguistic production	Initiative action; reactive linguistic production
CH3	Low	Child prevalence (10% more)	Action prevalence (40% more)	Action prevalence (50 % more)	Initiative action; initiative linguistic production	Initiative action; initiative linguistic production
CH4	High	Child prevalence (10% more)	Action prevalence (40% more)	Action prevalence (50 % more)	Initiative action; initiative linguistic production	Initiative action; reactive linguistic production
CH5	High	Equilibrated (adult 3% more)	Action prevalence (40% more)	Action prevalence (50 % more)	Initiative action; initiative linguistic production	Initiative action; initiative linguistic production
CH6	High	Adult prevalence (60% more)	Equilibrated (actions 3% more)	Action prevalence (50 % more)	Initiative action; initiative linguistic production	Initiative action; reactive linguistic production

CH2 showed actions and initiative in them as prevalent, with more child actions and a medium number of interventions from child and adult in the whole interaction. CH4 had a similar tendency, but with more reactive child linguistic production and a high number of child and adult interventions in the interaction.

CH6 showed a high number of interventions in the whole interaction, but with a higher prevalence of adult's interventions. Adult's interventions have almost equilibrium between actions and linguistic productions, accompanied by a child's behavior of higher number of actions, and a tendency of initiative actions and reactive linguistic productions. The following sections will show us more relationships with all these results.

*Categories and its association with other factors and variables*

From the 2405 actions analyzed in dyads, the 94,26% (n = 2267) are rated among the big dominion “interaction dynamic among participants” and the 5,74% (n = 138) among the big dominion “Kind of linguistic resources in adult and child during interaction”. Some important categories of the first big dominion are rated as shown in table 5.

Table 5. Number and percent of rated actions in dynamics of interaction in the dyad

<b>Action categories in dynamics of interaction</b>	<b>n</b>	<b>%</b>
<i>Adult accommodation of action to child's level</i>	291	12,10
<i>Dyad behaviors with an without shared reading habit</i>	107	4,45
<i>Dyad behaviors with shared reading habit</i>	59	2,45
<i>Focus in the activity</i>	1606	66,78
1.6.1 The Book	528	21,95
1.6.2 The Other (child or adult)	495	20,58
1.6.3 Content	316	13,14
1.6.4 Illustrations	267	11,10
<i>Role assumed by adult in the interaction with the child</i>	144	5,99
1.7.1 Guide (shows how to do things and take the child's hands to indicate him/her how to do)	17	0,71
1.7.2 Dialogue partner (equal pair in conversation)	32	1,33
1.7.3 Prevailing utterance producer (talk and give directions expecting child's actions in coherence with them)	33	1,37
1.7.4 Animator (with verbal expressions and signals directed to child in order to make him/her to do something)	62	2,58

This table show us, that, among the actions and interactions rated among interaction dynamics among participants in the dyad, there is a high number of actions related to adult accommodation to child's level, role assumed by adult during his or interaction with the child, and focus on the activity. With less representation, there are reading behaviors with and without reading habit and reading behaviors with reading habit in the dyads.

Focus on the activity, representing more than 66 % of the total rated interactions, is the most representative category. Each focus on the activity has representations, with more representation for the focus on book and on the other, and less on content and illustrations (the half of book and other). Role assumed by adult is just close to 6 % of all observed actions, with few differences in the role assumed by adult as animator, guide, dialogue partner and prevailing utterance producer.

By other hand, actions related to linguistic productions are shown in table 6. Among them, we have discourse, communicative and linguistic acts during shared reading and questions that promote knowledge. Having just a representation close to the 4 % of the total number of actions in dyad's shared reading, discourse, communicative and linguistic acts are concentrated more in narration and comment than in other acts. And the use of question to promote knowledge, both in adult and children, show a few examples.

Table 6. Number and percent of rated actions in kind of linguistic resources in the dyad

<b>Action categories in kind of linguistic resources</b>		<b>n</b>	<b>%</b>
<i>Discourse, communicative and linguistic acts in shared reading</i>		86	3,58
2.4.1	Narration	22	0,91
2.4.2	Comment	31	1,29
2.4.3	Exclamation	9	0,37
2.4.4	Description	5	0,21
2.4.5	Question	10	0,42
2.4.6	Prediction (to anticipate)	2	0,08
2.4.7	Explanation	7	0,29
<i>Questions that promote knowledge</i>		7	0,29
2.5.1	Why	1	0,04
2.5.6	Who	2	0,08
2.5.7	What	4	0,17

The rest of the analyses performed here are on the categories in tables 5 and 6, because they are the most representative actions in all dyads. All these results come from the relation among these last results and the main features found in adult-child dyads.

The *dynamics of interaction* big category has a high number of adult's and child's interventions, no prevailing features in adult/child interventions ratio, action prevalence in adults' and children's action / linguistic productions ratio, and initiative actions – initiative linguistic productions relationship in adults and initiative actions – reactive linguistic productions relationship in children. The category *focus on the activity* (from the big category *dynamics of interaction*) share with this frame the high number of adult's and child's interventions and the action prevalence over linguistic productions, but changes in two features: it presents child prevalence or equilibrium in adult / child interventions ratio and an initiative actions – initiative linguistic productions relationship both in children and adults. More in depth, the subcategories *focus on the other* and *focus in content* (from the category *focus on the activity*) differ from its superordinate category presenting undifferentiated child or adult prevalence in the adult / child interventions ratio and initiative actions – initiative linguistic productions relationship in adults and initiative actions – reactive linguistic productions relationship in children.

In the *dynamics of interaction* big category were included too the categories *dyad behaviors with or without shared reading habit* and *dyad behaviors with shared reading*. The first just differs from big category because it presents prevailing child's interventions in adult / child intervention ratio. The second differs in having more adult prevalence on child's interventions in adult / child intervention ratio.

In the same way, the big category *dynamics of interaction* include the category *role assumed by adult in the interaction with child*. It shares with the big category the high number of adult's and child's interventions and the pattern of initiative actions – initiative linguistic productions relationship in adults and initiative actions – reactive linguistic productions relationship in children. However, it presents adult prevalence adult / child interventions ratio and equilibrated number of actions and linguistic productions in adults accompanied with action prevalence in children. Interestingly, the *guide* subcategory has a low number of child and adult interactions, an almost equal number in child and adult interventions and action prevalence in adult and child interventions, while prevailing utterance producer has high or medium number of child and adult interactions, undifferentiated child or adult prevalence in number of interventions and action prevalence in child and adult interventions.

Contrary to the last big category, the big category kind of linguistic resources share all its features with all of its categories and subcategories. These features are:

- High number of child and adult actions
- Adult prevalence in child / adult intervention ratio
- An almost equal number of actions and linguistic productions in adults and action prevalence in children
- Initiative actions and linguistic productions relationship in adults and initiative actions and reactive linguistic productions relationship.

### **Discussion**

Results show that half of the dyads have high number of child's and adult's interventions and half of them have fewer interventions. It is related to an almost universal relationship between shared reading and affective bonds, attachment and adult educational level (Arias, 2013; Arias & Hederich, 2010; Bus, 2002) and to a spontaneous adult tendency to accommodate his/her action to child (Arias, 2013; Flórez, et. al., 2007; Ferreiro, 2007; Leseman & De Jong, 1998).

Results showed, by the same hand, that two of the dyads have almost equal adult and child interventions, three of them show prevailing child intervention and just one prevailing adult interventions. De Brito Castilho Wesseling and Lachmann (2012) describe similar situations as an emphasis changing in reading with children at age of four: a change from a dominant role in adult to a more "dialogic" reading, with more intentional child participation (see also Whitehurst, Arnold, Epstein, Angell, Smith & Fischel, 1994). However, there's no complete evidence of features like to read entire text to children, children's predictions or adult guide to specific parts of the text, as reported by Wade and Moore (Moore & Wade, 1997; Wade and Moore, 1996) in more advanced adult – child dyads in shared reading.

Findings showed too that actions are more frequent than linguistic productions in adults and children. Most of the actions analyzed are rated among dynamics of interaction dimension, and a quantity close to one twentieth are rated among linguistic resources dimension. Contrary to a certain body of evidence, there is not clear evidence of linguistic, communicative and discourse acts in shared reading in children between 3- and 6-years old (Dunn & Brophy, 2005; Lísina, 1988; Karmiloff & Karmiloff-Smith, 2002), but a possible explanation states that these abilities can be dependent on environmental factors such familiarity with the activity (Flórez et.al., 2009).

Adults and children of five of the six dyads have more initiative than responsive actions, while adults tend to have more initiative linguistic productions and children, more reactive linguistic productions. According to Bus (2002), initiating interaction could reflect interest, but it could be showing difficult in coordinating with the other in the dyad. A more microgenetic analyses of interaction would be needed to determine which is the case.

But with a more support in our own data we can see that most of the actions in the *dynamics of interaction* dimension are focus on the activity (book, other person, illustration and narrated story), followed just by a small quantity by role assumed by adult in interaction. These tendencies are convergent with studies in individual and dyadic differences showing too more evidence to focus on other and focus on book, than in other aspects (Arias, 2013; Arias & Hederich, 2010). But there is not enough evidence that these foci are truly

differential among dyads or individuals, as Arias (2013) and Arias and Hederich (2010), showed. A more detailed analysis of data processing techniques should be needed to determine this difference.

Linguistic resources interventions were manifested in linguistic, discourse and communicative acts, and *what* and *who* questions. Like previous studies showed too, linguistic, discourse and communicative acts are the most important linguistic productions in interaction with children from 3- to 6-years old, although its low prevalence in our outcomes compared with other research evidences (Arcidiacono & Perret-Clermont, 2009; Blewitt, Rump, Shealy & Cook, 2009; Dunn & Brophy, 2005; Frazier, Gelman & Wellman, 2009; Jipson & Callanan, 2003; Justice & Kandreavek, 2003; Lisina, 1998; Lohmann, Tomasello & Meyer, 2005; MacArthur, Adamson & Deckner, 2005).

The dynamics of interaction dimension is related to high number of children's and adults' interventions, prevalent actions over linguistic productions, and two patterns: initiative action – initiative linguistic productions in adults and initiative action – reactive linguistic productions in children. In the focus of interaction category, there are more child than adult interventions and more initiative linguistic productions, as a difference with general pattern. One probable explanation could be that these focus on the interaction show more active participation in children and adult, what shows that, although linguistic productions is low in comparison with other studies, the active participation show interest in the activity, even when it is not familiar for adult or child in the dyad (Bus, 2002; Arias, 2013).

These relationships have some changes in linguistic resources dimension: it differs from the other dimension with a prevalence of adult interventions and having almost the same number of actions and linguistic productions. In the same way as in the last point, it shows that adult active guide giving more linguistic productions could enhance the tendencies in children to participate in more complex linguistic and communicative acts (de Brito Castilho Wesseling & Lachmann, 2012; Flórez et al., 2009; Moore & Wade, 1997). Our data could be showing a point of emergence in it, because children are active, but with low linguistic productions in adult and child.

## References

- Aram, D. & Aviram, S. (2009). Mothers' storybook reading and Kindergartners' socioemotional and literacy development. *Reading Psychology*, 30, 175 – 194.
- Arcidiacono, F. & Perret-Clermont, A.-N. (2009) Revisiting the piagetian test of conservation of quantities of liquid: argumentation within the adult-child interaction. *Teoriia n Metodologyia*, 3, 25 – 33.
- Arias, N. (2013). Diferencias en la lectura conjunta adulto-niño y su relación con el estilo cognitivo del adulto. *Revista Colombiana de Educación*, 64, 199 – 223.
- Arias, N. & Hederich, C. (2010). Diferencias en la lectura conjunta inicial adulto – niño y su relación con el estilo cognitivo del adulto. M. A. Thesis (unedited) by first autor under advise of the second, Departamento de Postgrados – Facultad de Educación, Universidad Pedagógica Nacional.
- Arias, N. & Flórez, R. (2011). Aporte de la obra de Piaget a la comprensión de problemas educativos: su posible explicación del aprendizaje. *Revista Colombiana de Educación*, 60, 93 – 105.
- Blewitt, P., Rump, K. M., Shealy, S. E. & Cook, A. C. (2009). Shared book reading: when and how questions affect young children's word learning. *Journal of Educational Psychology*, 101(2), 294 – 304.

Bornstein, M. H. & Tamis-LeMonda, C. S. (2004). Mother – infant interaction. En G. Bremner & A. Fogel (eds.), *Blackwell Handbook of Infant Development* (pp. 269 – 295). Malden, Ma: Blackwell.

De Brito Castilho Wesseling, P. & Lachmann, T. (2012). Aquisicao e desenvolvimento da linguagem por meio de biblioteca e programa de leitura dialógica para crianças em idade pré-escolar. *Proceedings from Congreso Iberoamericano de las Lenguas en la Educación y en la Cultura / IV Congreso Leer.es Section: Alfabetización inicial, algo más que las primeras letras*. Salamanca: Universidad de Salamanca.

Bus, A. (2002). Joint Caregiver – Child Storybook Reading: A Route to Literacy Development. En S. B. Neuman y D. K. Dickinson (eds.), *Handbook of Early Literacy Research* (pp. 179 – 191). New York: The Guilford Press.

Collins, F., Svensson, C. & Mahony, P. (2005). *Bookstart: Planting a Seed for Life. Final Report, January 2005*. London: Roehampton University.

Cuervo, C., Flórez, R., & Acero, G. A. (2004). El desarrollo del lenguaje: de lo oral a lo escrito. In R. Flórez (ed.), *El lenguaje en la educación* ( pp. 27 – 84). Bogotá: Universidad Nacional de Colombia.

Dunn, J. & Brophy, M. (2005). Communication, relationships, and individual differences in children’s understanding of mind. In J. W. Astington & J. A. Baird (eds.), *Why language matters for Theory of Mind* (pp. 50 – 69). New York: Oxford University Press.

Ferreiro, E. (2007). *Alfabetización de niños y adultos. Textos escogidos*. Pátzcuaro, México: CREFAL.

Flórez, R., Arias, N. & Castro, J. (2010). Construyendo puentes. Lectura y escritura en la educación inicial. In Fundalectura (ed.), *¡Los niños son un cuento! Lectura en la primera infancia. Memorias IX Congreso Nacional de Lectura* ( pp. 49 – 59). Bogotá: Fundalectura.

Flórez, R., Restrepo, M. A. & Schwanenflugel, P. (2007). *Alfabetismo Emergente: Investigación, Teoría y Práctica. El caso de la lectura*. Bogotá: Universidad Nacional de Colombia / Instituto para la Investigación Educativa y el Desarrollo Pedagógico, IDEP

Flórez, R., Restrepo, M. A. & Schwanenflugel, P. (2009). Promoción del alfabetismo inicial y prevención de las dificultades en la lectura: una experiencia pedagógica en el aula de preescolar. *Avances En Psicología Latinoamericana*, 27 (1): 79 – 96.

Flórez, R., Torrado, M. C., & Arias, N. (2006). Los bebés también pueden leer en familia: resultados de una experiencia en Bogotá. In Fundalectura (ed.), *Leer en Familia en Colombia. Reporte de investigación y experiencias* (pp. 49 – 62). Bogotá: Fundalectura.

Frazier, B. N., Gelman, S. A. & Wellman, H. M. (2009). Preschoolers search for explanatory information within adult-child conversation. *Child Development*, 80(6), 1592 – 1611.

González, J. (2009). Lectura compartida de cuentos. Una experiencia en España y México. *Magis, International Journal of Educational Research*, 2: 397 – 411.

Jipson, J. L. & Callanan, M. A. (2003). Mother-child conversation and children understanding of biological and nonbiological changes in size. *Child Development*, 74(2), 629 – 644.

Justice, L. M. & Kanderavek, J. (2003). Topic control during shared storybook reading: mothers and their children with language impairments. *TECSE*, 23(3), 137 – 150.

Karmiloff, K. & Karmiloff-Smith, A. (2002). *Pathways to language: from fetus to adolescent*. Cambridge, Mass: Harvard University Press

Kugelmass, J. W. & Ross-Bernstein, J. (2000). Explicit and implicit dimensions of adult-child interactions in a quality childcare center. *Early Childhood Education Journal*, 28(1), 19 – 27.

Leseman, P. M. y De Jong, P. F. (1998). Home literacy: Opportunity, instruction, cooperation social – emotional quality predicting early reading achievement. *Reading Research Quarterly*, 33, 294 – 318.

Lísina, M. (1988). La génesis de las formas de comunicación en los niños. En M. Shuare & V. Davidov (comps.), *La psicología evolutiva y pedagógica en la URSS* (pp. 274 - 297). Moscow: Progreso.

Lohmann, H., Tomasello, M. & Meyer, S. (2005). Linguistic communication and social understanding. In J. W. Astington & J. A. Baird (eds.), *Why language matters for Theory of Mind* (pp. 245 – 265). New York: Oxford University Press.

MacArthur, D., Adamson, L. B. & Deckner, D. F. (2005). As stories become familiar: mother-child conversations during shared reading. *Merril-Palmer Quarterly*, 51(4), 389 – 411.

Martini, F. & Sénéchal, M. (2012). Learning literacy skills at home: parent teaching, expectations, and child interest. *Canadian Journal of Behavioural Science*, 44(3), 210 – 221.

Moore, M. & Wade, B. (1997). Parents and children sharing books: an observational study. *Signal*, September, 203 – 214.

Pankratz, M. E., Plante, E., Vance, R., & Insalaco, D. M. (2007). The diagnostic and predictive validity of The Renfrew Bus Story. *Language, Speech, and Hearing Services in Schools*, 38, 390-399.

Rodríguez, B. L., Hines, R. & Montiel, M. (2009). Communication behaviors and interactive strategies during shared book reading. *Language, Speech and Hearing Services in Schools*, 40, 271 – 272.

Scarborough, H. (2002). Connecting early language and literacy to latter reading (dis)abilities: evidence, theory and practice. In S. B. Neuman y D. K. Dickinson (eds.), *Handbook of Early Literacy Research* (pp. 97 – 110). New York: The Guilford Press.

Sun, J. & Rao, N. (2012). Scaffolding interactions with preschool children: comparisons between Chinese mothers and teachers across different tasks. *Merrill-Palmer Quarterly*, 58(1), 110 – 140.

Van Kleeck, A. (2008). Providing preschool foundations for later reading comprehension: the importance of and ideas for targeting inferencing in storybook-sharing interventions. *Psychology in the Schools*, 45(7), 627 – 643.

Van Kleeck, A., Gillam, R. B., Hamilton, L. & McGrath, C. (1997). The relationship between middle-class parents' book-sharing discussion and their preschoolers' abstract language development. *Journal of Speech, Language, And Hearing Research*, 40(6),

Wade, B. & Moore, M. (1996). Home activities: The advent of literacy. *European Early Childhood Education Research Journal*, 4(2), 63 -76.

- Wade, B., & Moore, M. (2000). A sure start with books. *Early Years*, 20 (2): 39 – 46.
- Walsh, B. A. & Blewitt, P. (2006). The effect of questioning style during storybook reading on novel vocabulary acquisition of preschoolers. *Early Childhood Education Journal*, 33(4), 273 – 278.
- Wasik, B. & Bond, M. (2001). Beyond the pages of a book: interactive book reading and language development in preschool classrooms. *Journal of Educational Psychology*, 93 (3), 243 – 250.
- Wells, G. (1986). *The meaning makers*. London: Hodder and Stoughton.
- Whitehurst, G. J., Arnold, D. S., Epstein, J. N., Angell, A. L., Smith, M. & Fischel, J. (1994). A picture book reading intervention in day care and home for children from low-income families. *Developmental Psychology*, 30, 679 – 689.
- Witherington, D. C., Campos, J. J. & Hertenstein, M. J. (2004). Principles of emotion and its development in infancy. In G. Bremner & A. Fogel (eds.), *Blackwell Handbook of Infant Development* (pp. 427 – 464). Malden, Ma: Blackwell.
- Zucker, T. A., Justice, L. M. & Piasta, S. B. (2009). Prekindergarten teachers' verbal references to print during classroom based, large-group shared reading. *Language, Speech and Hearing Services in Schools*, 40, 376- 392.