

A Reliability Study of Parent Reading Belief Inventory (PRBI) – the Case of Albania

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Abstract

Studies have shown that language development in children is something adults can work on to initiate its enhancement in various ways. Reading aloud is one of the most effective ways families can promote the enhancement of literacy and language development of preschoolers (De Temple & Snow, 2003) (Sénéchal & Cornell, 1993) (Whitehurst, et al., 1988).

Reading behaviors could derive from parent's belief on the effects of reading to children. It is assumed that the more a parent believes that children would benefit from shared reading, the more s/he will read with the child. To measure parental belief about reading to children, DeBaryshe and Binder (1994) developed an instrument named *Parental Reading Beliefs Inventory*. The inventory, analyzed in the present study, resulted to be satisfyingly reliable within the sample of Albanian parents (42 items; $\alpha = 0.89$).

The purpose of this study was to i) examine the Parent Reading Belief Inventory (PRBI) scale reliability in a sample of 265 Albanian parents, ii) evaluate internal consistency of the 7 PRBI original scale components, and iii) assess the item analysis.

Categorical data of PRBI results from Albanian parents in Albania show that most parents have positive beliefs about reading to preschool children measured by this scale.

Keywords: Reading Aloud, Parental Reading Beliefs, Scale Reliability, Preschooler

Introduction

Parents within the family environment are the ones that can effectively promote language and literacy development through shared reading (De Temple & Snow, 2003) (Sénéchal & Cornell, 1993) (Whitehurst, et al., 1988). The quantity and quality parents read to their preschoolers occurs as a result of their beliefs on the effects of reading aloud to children.

Parents' beliefs are of extreme importance to researchers studying children's home literacy environment and child language development (Sénéchal & LeFevre, 2002) (Drummond & Stipek, 2004) (Hammer, Rodriguez, Lawrence, & Miccio, 2007) (Carroll, 2013).

The more trustful parents are about reading effects on preschoolers' language skills, the more time they will tend to spend reading to them.

Language acquisition and development comes as a result of maturity and child learning environment. The more a child uses a language, through experience, the better s/he will be at speaking it, even when her/his native language. One successful way of teaching language to children is by reading aloud to them since preschool years or even earlier. Studies show that reading aloud is one crucial activity that can be an effective factor for literacy and language development for toddlers and preschoolers. Reading a book to preschool children is an important activity that will help enhance their development in many ways. The sooner parents start to read aloud to their children the better it is for their development.

Vocabulary development is crucial in the preschool age, which will also continue through childhood and adolescence. Children utter their first word around one year old and step by step, word by word, they reach the amount of 25-50 words. Chall supports the idea that vocabulary is connected to reading skills and the time spent reading during school age (van Kleeck, 2003) and in the preschool age it is related to the interactive reading children get from their parents (van Kleeck, 2003). This will determine their success later in the class as soon as they start learning mathematics and other subjects. The more vocabulary the child has, and the best skilled on reading s/he is, will enable her/him to comprehend most of the subjects and perform the best in home and class work.

The quantity of materials parents read to their preschoolers derives from their beliefs on the effects that reading aloud to children will have on their vocabulary, language development and overall child development. Studies show a positive correlation between parental reading beliefs and the home literacy environment they create for their daughters and sons. Parents create a home literacy environment for their preschoolers at home in compliance to their beliefs. The parents that appreciate and have positive beliefs about reading engage their children in more literacy activities (Weigel, Martin, & Bennett, 2006).

Parents' beliefs are important as they will provide their children with a rich (or poor) literacy environment at home accordingly. A proper home literacy environment involves children's books (not counting school books), playing with alphabet toys, storytelling, and lots of reading activity time. There are two types of literacy environment to create at home: 1) informal – exposure to books and 2) formal – parents and children discussing and concentrate explicitly on written materials (Sénéchal & LeFevre, 2002). Therefore, even passive exposure to books, by building a bookshelf filled with children's books in the child's room and visiting a library or a bookstore with the child apart from actually reading together with her/him counts as a proper home literacy environment to promote child language development.

Aim Of The Study

The aim of this study is to explore the Parent Reading Belief Inventory (PRBI) for the adaptation in the Albanian context for preschool children so detailed analysis were conducted to: i) examine the PRBI scale reliability in a sample of Albanian parents, ii) evaluate internal consistency of the 7 scales from the PRBI original scale components, and iii) assess the item analysis.

Methodology

Population and sample

The present study aims to explore parents' reading belief and attitude on reading activities with their preschool children. Self-reported questionnaires were distributed to

parents of preschoolers contacted from kindergarten teachers, in five kindergartens of Tirana, when they came to pick up their children from kindergarten. A sample of 265 parents, out of 300 that were contacted, agreed to respond to the questionnaire and returned them properly completed. 28 parents did not return their questionnaire and 7 were disqualified from data cleaning process for being not-properly completed. Return rate of the questionnaire was 88.3% which is considered to be very good, as the final sample was 265 participants.

The questionnaires were answered 75% from mothers of the children; 17% from children's fathers; and 8% of the parents filled the questionnaires together as a couple.

Sample of the children resulted to be very gender balanced with 50% girls (n=133) and 50% boys (n=132). Sample children's mean age is four and a half years old (54.1 months). While respondent parents have a mean age of: mothers – 30.3 years old and fathers – have a mean age of 37.6 years old.

The instrument

To measure parent's belief about reading to children, DeBaryshe and Binder (1994) developed an instrument named *Parent Reading Beliefs Inventory*. The author translated this inventory in Albanian language in a team of peer translators and child development experts and then the Albanian PRBI was back-translated in English to match the items with the original.

To the authors' knowledge, no other attempts have been made to look into psychometric measures of the Parent Belief Inventory in Albania, though the PRBI has been tested in researches in the Albanian family context (Dhima, 2014).

Research procedure

After translation and formatting of the instrument with randomized items in Albanian language, the original of 42 items PRBI model was distributed to a sample of 300 parents in the capital city of Albania, Tirana. Parents were contacted in kindergartens of the city and were given the questionnaire home to turn it in the next morning after completion. Only 265 parents returned the questionnaire completed.

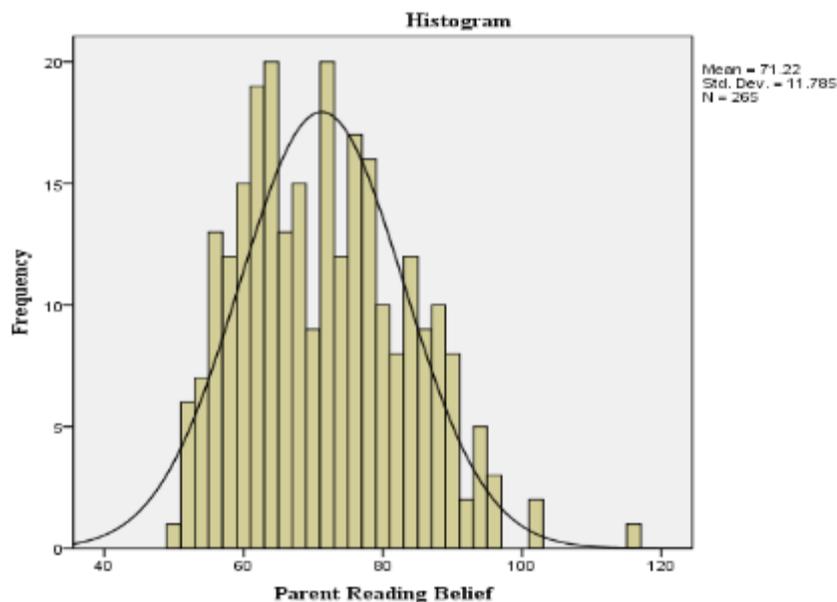
Data entry, processing and analysis was made with IBM-SPSS 21. Data cleaning was performed to exclude every questionnaire that was not properly filled or had 10% and more unanswered questions. Reversed items were recoded appropriately to do all required scale and reliability analysis.

The inventory resulted to be reliable in the Albanian context (42 items; $\alpha=0.89$) showing a complete understanding of the scale and its items in Albania.

Results

Frequencies of answered items have a normal distribution throughout the sample. The Parent Reading Belief variable has a healthy distribution of scores: Mean=71.2, Median=71.0, Mode=61.0, Standard Deviation=11.8, and Skewness=0.45 and Kurtosis=-0.17. Minimum and maximum values are respectively 50 and 116 (the smaller values show the more positive belief)

The distribution has also a normal curve as shown in the histogram below.



Graph 1: Normality distribution histogram for Parent Reading Belief variable scores

Scale reliability as a total is satisfying. It has a Cronbach's Alpha $\alpha=0.89$ for the entire scale of 42 items.

Table 1:

Reliability statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
0.892	42

PRBI is composed of 7 subscales, the reliability of which was also tested through scale reliability analysis, for the original core structure, by the author. Subscales reliability in the Albanian context were evaluated and outcomes were satisfactory. As when compared to the original results of DeBaryshe and Binder (1994) they differ in a small range. Reliability of each subscale is: 1) affect – positive affect associated with reading (11 items; $\alpha = 0.80$); 2) verbal participation – the value placed on children's active verbal participation when reading aloud (8 items; $\alpha = 0.76$); 3) resources – whether limited resources are an obstacle to reading (4 items; $\alpha = 0.73$); 4) teaching efficacy – views on the parents' role as teachers of school-related skills (9 items; $\alpha = 0.62$); 5) knowledge – whether children acquire moral orientations or practical knowledge from books (5 items; $\alpha = 0.62$); 6) environment – the malleability of language development (2 items; $\alpha = 0.43$); 7) reading instruction – the appropriateness of direct reading instructions (4 items; $\alpha = -0.16$).

Comparison of Cronbach's Alpha with PRBI original Factor Solution and other recent studies with Mexican American mothers (Rodriguez, Hammer, & Lawrence, 2009), Hispanic parents in Florida (Martelo, 2013), diverse ethnicity parents south Texas, USA (Gonzalez, Taylor, Davis, & Kim, 2013) and Serbian parents (Radišić & Ševa, 2013), is shown in the table below.

Table 2:

Cronbach's Alfa comparison in various studies, the original and the current study

Subscales	Nr. of items	DeBaryshe & Binder, 1994 α	Rodriguez et.al. 2009 α	Martelo, 2013 α	Gonzales et.al 2013 α	Radisic & Seva, 2013 α	Present Study α
1. Teaching Efficacy	9	.73	.79	.69	.68	.58	.62
2. Positive Affect	11	.85	.79	.75	.77	.77	.80
3. Verbal Participation	8	.83	.88	.88	.83	.76	.76
4. Reading Instruction	4	.63	.65	-.97	.73	.65	-.16
5. Knowledge base	5	.82	.77	.79	.80	.65	.62
6. Resources	4	.79	.86	.86	.80	.59	.73
7. Environmental Input	2	.50	.39	.01	.72	.50	.43

As seen on the table above, in the present study scale reliability is comparable to the original results. Only in the current study and in the Hispanic families study the reading instruction subscale has a negative Cronbach's Alpha.

The best reliability results belong to the Positive Affect ($\alpha=0.80$, $n=11$), Verbal Participation ($\alpha=0.76$, $n=8$), and Resources ($\alpha=0.73$, $n=4$).

Sample items from each subscale are shown in the Table 3, below:

Table 3:

Example items for each PRBI subscale

Scale	Example of items
Teaching Efficacy	As a parent, I play an important role in my child's development. My child learns many important things from me. Children do better in school when their parents also teach them things at home.
Positive Affect	I enjoy reading with my child. Reading with my child is a special time that we love to share. I want my child to love books.
Verbal Participation	Children learn new words, colors, names, etc., from books. When we read, I want my child to help me tell the story. I ask my child a lot of questions when we read.
Reading Instruction	I read with my child so he/she will learn the letters and how to read simple words. My child is too young to learn about reading.
Knowledge Base	I try to make the story more real to my child by relating the story to his or her life. Stories help build my child's imagination.

Resources	Reading helps children learn about things they never see in real life (like Eskimos and polar bears). Even if I would like to, I'm just too busy and too tired to read to my child. I don't read to my child because there is no room and no quiet place in the house.
Environmental Input	Some children are natural talkers, others are silent. Parents do not have much influence over this. Children inherit their language ability from their parents, it's in their genes.

According to Martelo (2013), there are two other interpretable scales which have a Cronbach's Alpha more than 0.8. These scales are: Parental Involvement in Reading Skills and Barriers to Reading. Both scales' reliability analysis was conducted in the present study with satisfactory results as shown in the tables below.

The Parental Involvement in Reading Skills subscale resulted to be comprehensible and to be used for further interpretations in the Albanian context.

Also the Barriers to Reading subscale with 11 items resulted to be adequate for the present study showing comprehensibility in the Albanian context.

Table 4:

Additional subscale Cronbach's Alfa comparison

Subscales	Nr. of items	Martelo 2013 α	Present Study α
Parental Involvement in Reading Skills	12	0.89	0.83
Barriers to Reading	11	0.88	0.85

The Pearson correlation between the PRBI scale and its subscales is also an important indicator that the internal reliability of PRBI is good. The Pearson correlation 2-tailed, was found to be statistically significant and very high for each subscale with the complete PRBI scale. It ranges from $r=0.35$, $p=0.00$ for the two-item Environmental Input scale with PRBI to $r=0.89$, $p=0.00$ for the eight-item Positive Affect scale with the large scale.

All correlations are very high and extremely significant as shown from their p-values, also within the subscales. The only exception is the correlation of Environmental Input with Verbal Participation and Knowledge Base with no statistically significant correlation.

Table 5:
Correlations between subscales and the total scale

	PRBI	Teaching Efficacy	Positive Affect	Verbal Participat	Reading Instruct.	Knowledg e Base	Resourc e	Environ. Input
PRBI	1							
Teaching Efficacy	.806**	1						
Positive Affect	.894**	.609**	1					
Verbal Participation	.769**	.496**	.675**	1				
Reading Instruction	.554**	.396**	.481**	.337**	1			
Knowledge Base	.674**	.443**	.544**	.634**	.285**	1		
Resources	.744**	.614**	.646**	.424**	.321**	.321**	1	
Environmental Input	.349**	.275**	.212**	.074	.172**	.072	.213**	1

** . Correlation is significant at the 0.01 level (2-tailed)

Categorical PRBI data distribution for the sample

Overall results, gathered in categorical data where divided in three categories (where: 1=Strong beliefs, 2=Moderate beliefs, and 3=Weak beliefs), show that most parents have strong positive beliefs about reading to preschool children activity. No parent resulted not to believe in the shared reading impacts on literacy and language development.

The general parent beliefs towards reading to children in the current study results to be quite positive. Parents of preschoolers of Tirana in Albania have scored high levels of beliefs in the PRBI.

Table 6:
Overall Parent Reading Belief categorical data

Parent Reading Belief		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strong Beliefs	234	88,3	88,3	88,3
	Moderate Beliefs	31	11,7	11,7	100,0
	Weak Beliefs	0	0	0	
	Total	265	100,0	100,0	

And the mean of the entire sample PRBI score is $M=71.65$, $SD=11.96$, where minimum of 42 possible points show strongest beliefs (positive scores) and maximum of 168 possible points show weakest beliefs, extrapolated from a 4-point Likert scale where 1=Totally agree and 4=Totally disagree.

Table 7:
PRBI scale statistics

Scale Statistics					
Mean	Variance	Std. Deviation	N of Items	Min	Max
71.65	142.943	11.956	42	42	168

ITEM ANALYSIS

Item analysis consists in the exploring of the most agreed on and least agreed on item, in this case corresponding to the most common belief and least common belief.

The most common belief of Albanian parents is that they play an important role in their child development, with a mean of 1.3 [1=Totally agree – 4=Totally disagree]. 75% totally agree and 25% agree.

Table 8:
Item analysis – the most common belief of PRBI

As a parent, I play an important role in my child's development.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	198	74.7	74.7	74.7
	Agree	67	25.3	25.3	100.0
	Total	265	100.0	100.0	

The least believed item is that children inherit their language skills from their parents through their genes, with a mean of 2.5 [1=Totally agree – 4=Totally disagree]. 48% totally agree and agree and 52% disagree and totally disagree.

Table 9:
Item analysis – the least common belief of PRBI

Children inherit their language ability from their parents, it's in their genes.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally agree	26	9.8	10.1	10.1
	Agree	99	37.4	38.4	48.4
	Disagree	100	37.7	38.8	87.2
	Totally disagree	33	12.5	12.8	100.0
	Total	258	97.4	100.0	
Missing	System	7	2.6		
Total		265	100.0		

Discussion

In the current study the author explored the reliability of the core factor structure originally proposed by the developer of Parent Reading Belief Inventory (PRBI). The inventory was created to explore parents' beliefs about emergent literacy, reading aloud to children, attitudes and perceptions about how children learn their first language and how parents can be efficient in this process.

The general parents' beliefs towards reading aloud to children benefits during their preschool years is positive. Parents feel that their children would benefit for their education and development from reading aloud.

There seems to be a confusion within Albanian parents whether they are responsible and/or whether it is appropriate for them to teach their preschool children letters and how to read simple words, or if this is a total responsibility of teachers at school, not even in kindergartens.

In the Albanian culture the authority of the teacher is widely accepted and also is the distribution of responsibilities. Parents would like to have more time on their own and to entrust their children's education completely to the teacher and the school. This will also allow parents to attribute their child's failure to the external factors such as the school or the teacher, as usually it is done in our society.

The overall reliability of the PRBI scale is very good. The scale is adaptable and it can be easily used in the Albanian family context. This provides Albanian researchers and preschool professionals with an instrument with good metric measures to measure parent reading beliefs for their children.

Conclusion And Recommendations

The issue of reading aloud with preschool children and their language development is not a highly researched field in Albania. Language development is mostly studied as part of cognitive problems, maturation, or even intelligence and language disorders. The lack of studies from this perspective makes it seem like language and literacy development is something adults can do nothing about to help toddlers and/or preschoolers perform better.

It is commonly believed in the Albanian culture that adults cannot do much to train children's language skills. In fact, adults, parents and caregivers can do a lot about it to enhance and accelerate language and literacy development before children go to school. Reading aloud with them is one of these things.

Further research should be conducted to explore various factors that could be found in the present scale and test the model fit for the original components and new combined ones that could derive. So the PRBI would be standardized to be used in the Albanian context in other research designs that might involve this variable.

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