

Athens Institute for Education and Research

ATINER



ATINER's Conference Paper Series

LIT2012-0303

**Development of the Language Use
Inventory: An Assessment for
Pragmatic Skills in Portuguese**

Cristiana Guimarães

**Institute of Education, University of Minho, Portugal
(Foundation for Science and Technology – FCT Grant -
SFRH/BD/76861/2011)**

Anabela Santos

Leandro Almeida

**Institute of Education,
University of Minho, Portugal**

Athens Institute for Education and Research
8 Valaoritou Street, Kolonaki, 10671 Athens, Greece
Tel: + 30 210 3634210 Fax: + 30 210 3634209
Email: info@atiner.gr URL: www.atiner.gr
URL Conference Papers Series: www.atiner.gr/papers.htm

Printed in Athens, Greece by the Athens Institute for Education and Research.
All rights reserved. Reproduction is allowed for non-commercial purposes if the
source is fully acknowledged.

ISSN 2241-2891

15/11/2012

An Introduction to ATINER's Conference Paper Series

ATINER started to publish this conference papers series in 2012. It includes only the papers submitted for publication after they were presented at one of the conferences organized by our Institute every year. The papers published in the series have not been refereed and are published as they were submitted by the author. The series serves two purposes. First, we want to disseminate the information as fast as possible. Second, by doing so, the authors can receive comments useful to revise their papers before they are considered for publication in one of ATINER's books, following our standard procedures of a blind review.

Dr. Gregory T. Papanikos
President
Athens Institute for Education and Research

This paper should be cited as follows:

Guimarães, C., Santos, A. and Almeida, L. (2012) **“Development of the Language Use Inventory: An Assessment for Pragmatic Skills in Portuguese”** Athens: ATINER'S Conference Paper Series, No: LIT2012-0303.

**Development of the Language Use Inventory:
An Assessment for Pragmatic Skills in Portuguese**

Cristiana Guimarães
Institute of Education, University of Minho, Portugal
**(Foundation for Science and Technology – FCT Grant -
SFRH/BD/76861/2011)**

Anabela Santos
Leandro Almeida
Institute of Education,
University of Minho, Portugal

Abstract

One of the first communicative skills that babies develop is the Pragmatic abilities. When these skills are not developing in a typical pattern, a developmental delay can also be observed in other language skills such as semantics, phonology, morphology and syntax. The identification and assessment of children at risk for language disorders are crucial in order to carry out an effective early intervention. Given the relevance of pragmatics as a component of language and the lack of assessment tools in Portugal to assess these abilities, one of the primary goals of this study rely in the adaptation and validation of the inventory “*Language Use Inventory - LUI*” elaborated by Daniela O’Neill (2009). The LUI is a standardized parent-report measure designed to assess pragmatic language development in children with 18- to 47-month-old. The inventory is completed by parents/caregivers of children in approximately 30-40 minutes. Consists in 14 subscales to assess child’s communication in wide range of settings and for broad variety of functions including, for example, requesting help, sharing focus of attention, asking about something or guiding interactions with other people. The first step of this process consisted on a pilot test with the purpose of analyzing internal reliability. Taking this account the LUI –Portuguese version was completed by 120 parents recruited from day care centers and kindergarten in several districts of Portugal. This study is based on a quantitative research, using procedures to analyze descriptive and inferential statistics. Some preliminary results will be presented in order to validate the LUI.

Keywords: Communication, Language, Pragmatics, Early childhood, Assessment

Contact Information of Corresponding author:

Introduction

Although the definitions of language can be quite complex, the language can be defined in a holistic perspective, as a system of symbols (sounds, words and signs) organized on a regular basis that allows humans to communicate (Owens, 2005). Therefore, the acquisition and development of language resulting from the child's interaction with the surrounding environment, e.g., the daily social interactions with people and the communication with others allow the child to acquire language. Language is based on a complex combination of various components and phonological, syntactic, morphological, semantic and pragmatic rules (Owens, 2005).

According to Gallagher (1991), cited by O'Neill (2009, p. 3), "when [the] language code is used to communicate, is an inherently social phenomenon. Pragmatics is the study of language as it is used and when language is used in conversation it is a social behavior". So we can understand the pragmatic as the ability to use language appropriately and effectively with others in social interactions (Bates, 1976 cited by O'Neill, 2007).

Pragmatics is the system of rules that supports the communicative use of language. So, nonverbal pragmatics encompasses the nonlinguistic aspects (facial expression, eye contact, gestures, body posture and, proximity) and the paralinguistic aspects (intonation, loudness and pausing) that provides the properly context for the interpretation of the speaker's verbal message and his communicative intention. The verbal pragmatics refers to turn-taking rules, initiation of conversation and response to the speaker, maintaining a conversation topic with the appropriate facial expression and use of vocabulary in different social contexts (Hulit & Howard, 2006; Owens, 2005).

The development of pragmatics begins immediately after birth when the baby and mother make the eye contact and exchange facial expressions during the interaction. Within a few months the baby starts to carry out shifts of vocalizations, imitation and respond to facial expressions of the mother. The infant-adult interaction and production of vocalizations mark the beginning of the communicative use of language and confirms that language influences social behavior (Hulit & Howard, 2006; Owens, 2005).

The child, throughout its development, acquires and makes use of the native language and can even use just one word complete with facial expressions, pointing or intonation. Although not clearly defined pragmatic is one of the language components and is the basis of communicative interaction and is transverse to the other components.

Over the past decades, many studies have been conducted about language however; studies on the development of pragmatic are more recent compared with the other components. Therefore, scientific curiosity in this subject is associated to the recognition that pragmatic emerges as a transverse component to the other components of language, and hence also its relevance.

To this account and given the lack of pragmatic assessment tools in European Portuguese, this study aims to translate, adapt, and validate the

Language Use Inventory (LUI) developed by Daniela O'Neill (2009) into a Portuguese version.

The LUI is a parent report whose assessment of the child is performed by the parent or caregiver. The parent report has been developed and used extensively in English language in the last years. One of the reasons relies on the advantage based on parent's extensive knowledge and experience about language skills of their child, in a variety of naturalistic settings and everyday situations, which usually results in a more realistic assessment of the child's linguistic performance, which a formal test cannot capture (Law & Roy, 2008).

Therefore, using the child's parents or caregiver's responses, this instrument allows us to assess language in early ages, based in family centered practices.

Method

Instrument

The instrument used in this study is the "Language Use Inventory: An Assessment for Young Children's Pragmatic Language Development" (LUI), a standardized parental report developed by Daniela O'Neill and published in 2009.

The LUI is based on a research project accomplished in Canada over the last 10 years, with the purpose to assess the early development of pragmatics in children from 18- to 47-months-old.

This parent report allows the identification of children with delay or impairment in pragmatic language development (i.e., the use of language in a broad variety of everyday settings and in interaction with other people) compared to children of the same gender and age in months, and the identification of children whose expressive language skills should be further assessed with a comprehensive speech and language battery. According to the research performed by O'Neill and her team, the reliability and stability of the LUI shows sensitivity and specificity levels over 95%. Such as, has an important clinical utility of 90% accuracy in distinguishing and language-delayed children from typically developing pairs.

Completion of LUI must be made by parents or caregivers of children and the same is composed of 14 subscales, which are divided into three parts: Part 1 – How your child communicates with gestures (two subscales), Part 2 – Your child's communication with words (three subscales), and Part 3 – Your child's longer sentences (nine subscales). These assess child's communication in a wide range of settings and for broad variety of functions including, for example, requesting help, sharing focus of attention, asking and commenting about things and people; guiding interactions with other people; sharing humor; talking about language and words; adapting communication to perspectives of other people; and building longer sentences and stories.

Participants

One hundred and twenty participants from several districts of Portugal were recruited for this study. Of the 180 inventories that were distributed, in day care centers and kindergarten, 36 inventories were not returned and 24 inventories were excluded for the following reasons: missing data, age older than 47 months, second language exposure more than 20% waking hours, clinical reasons and prematurity exceeding the 2 weeks.

The participants of the sample are parents and caregivers of children between the ages of 18 to 47 months, female (40.8%) and male (59.2%). Since the age range is significantly large, it was divided into 5 groups with an interval of 6 months between each one (see Table 1).

Table 1. Sample groups distribution (n=120)

Group	Age group (months)	Groups distribution
1	18-23	16,7%
2	24-29	27,5%
3	30-35	24,2%
4	36-41	20,0%
5	42-47	11,7%

Procedures

The process of translation and adaptation of an assessment instrument is quite strict and complex, resembling the process of building a new instrument, so it is also necessary to perform studies of reliability and validity of the instrument in the new context and population.

This process includes several steps that cannot be neglected because it can call into question the validity of the scientific instrument and as such it should not be used in this case, for diagnostic purposes (Almeida & Freire, 2008; Geisinger, 1994; Hill & Hill, 2002).

1. Request for authorization:

In order to proceed with this research project we requested permission for the instrument's author, Dr. Daniela O'Neill, and the publisher Knowledge in Development, located in Canada, for the translation, adaptation and validation of the "Language Use Inventory: An Assessment for Young Children's Pragmatic Language Development "(2009), into European Portuguese.

2. Translation:

This procedure, something complex, must follow certain assumptions so that there is similarity between the original instrument and the relevant technical translation at various levels, i.e., the translated instrument in the end,

should have content equivalence, technical, criterion, semantic and cultural (Geisinger, 1994; Hill & Hill, 2002).

So, first, the LUI instrument was translated from English to European Portuguese, by a Portuguese native speaker fluent in English. Then a retro translation of it was performed, i.e., the translated version for European Portuguese was again translated into English by a English native speaker fluent in European Portuguese, following international standards for this purpose. The two versions, the original and translated, were compared and found, in general, the maintenance of technical content, and semantic criteria.

3. Review of translation and socio-cultural adaptation:

The third step aims to verify the consistency of all items in both languages, likely due to sociocultural differences between different countries, in this case between Canada and Portugal (Geisinger, 1994).

To this end, a panel consisting of three experts in the field of linguistics and child development in early childhood that made the revision of the instrument and suggested some semantics changes (verbs, adjectives, common names) and syntactic (simplification of statements) of order to adapt to the Portuguese population.

The two versions, the original and translated were compared and validity judgment was found, taking into account that the translated instrument will measure everything to be measured in the original.

4. Thinking aloud:

The fourth step includes a spoken reflection to a small group, consisting of participants in order to detect the existence of poorly constructed items and verify the existence of ambiguous content of the items that may cause questions to them and that, therefore, need to be modified (Almeida & Freire, 2008).

The thinking aloud group was formed in view of the regions of high population density, urban and rural regions. Thus it comprised 10 participants, among which a participant from *Melgaço*, one of *Monção*, one of *Famalicão*, one of *Santo Tirso*, one of *Porto*, one of *Guarda*, one of *Lisboa*, one of *Beja*, one of *Serpa* and one of *Albufeira*.

Upon completion of the spoken reflection with all participants, we analyzed the views and comments from participants about the instrument and were made the following changes: aspect and inventory structure - layout of the header, underlined and bold; grammar aspects - simplification of sentences, withdraw the personal pronouns, phrase beginning with the verb form, and uniformity in every sentence, the pronoun referring to the father / mother who went to the 3rd singular person, and semantic aspects - adequacy of examples to the Portuguese culture.

In the end, we elaborated the first version of the instrument in Portuguese, where there is the maintenance of all items on the original version.

5. *Pilot study:*

This step is the procedure preceding the normative study for the validation of the Portuguese population and aims to determine the responses dispersion, the internal consistency of items and the validity of the instrument itself. To this test, the sample was composed of 120 parents/caregivers, with the same characteristics of the population sample target (Geisinger, 1994).

Upon completion of the pilot study, data were statistically analyzed, presenting the same bellow.

Results and Discussion

The first aspect to note in this study is the time to fill in the inventory. In the original version, O'Neill (2009) mentions that LUI takes about 20-30 minutes to complete and we found that in Portuguese version takes about 30-40 minutes to complete.

Results were performed by the software "SPSS - Statistical Package for Social Sciences" (version 18.0 for Windows).

In addition to completing the LUI, parents, through a form, also gave information concerning the birth, health and language of her son, and exposure to other languages besides their mother language.

To check the index of internal consistency, we calculated the Cronbach's alpha value for the three parts and the fourteen subscales of the LUI (see Table 2), and compared the original version and the translated version to European Portuguese.

Table 2. Values for Cronbach's alpha for all parts and subscales of the Language Use Inventory (first translated version to Portuguese)

	<i>Alfa</i> <i>EN</i>	<i>Alfa</i> <i>PT</i>	Nº de itens
Parte 1: How your child communicates with gestures	.91	.87	13
A: How your child uses gestures to ask for something	.92	.88	11
B: How your child uses gestures to get you to notice something	.55	.29	2
Parte 2: Your child's communication with words	.95	.92	28
C: Types of words your child uses	.93	.91	21
D: Your child's requests for help	.87	.73	7
E: Your child's interests	---	---	2
Parte 3: Your child's longer sentences	.99	.98	133

F: How your child uses words to get you to notice something	.83	.72	6
G: Your child's questions and comments about things	.91	.87	9
H: Your child's questions and comments about themselves or other people	.98	.94	36
I: Your child's use of words in activities with others	.94	.92	14
J: Teasing and your child's sense of humour	.80	.71	5
K: Your child's interest in words and language	.86	.84	12
L: Your child's interests when talking	---	---	4
M: How your child adapts conversation other people	.93	.92	15
N: How your child is building longer sentences and stories	.98	.96	36

After the analysis of the Cronbach's Alpha values of the two versions, we conclude that the results obtained in the translated version are very similar to results obtained in the original version. Most items have values on the same range for both versions.

Overall, the three parts of LUI, according to Leech, Barret, and Morgan's (2005) classification have high internal consistency ($\alpha > .8$). However, analyzing each subscale we conclude that the subscales A, C, G, H, I, K, M and N have high internal consistency ($\alpha > .84 < .96$), and the subscales D, F and J have moderate consistency internal ($\alpha > .7 < .8$).

Conclusions

The results of the LUI's (Portuguese version) internal consistency through the analysis with the alpha coefficient value for the subscales were very strong and confirmed the scale's reliability.

Preliminary findings shown that the LUI Portuguese version has clinical/educational utility in pragmatic assessment in young children.

References

- Almeida, L., & Freire, T. (2008). *Metodologia da investigação em psicologia da educação*. Braga: Psiquilíbrios.
- Gallagher, T., & Prutting, C. (1983). *Pragmatic assessment and intervention issues in language*. San Diego: College-Hill Press.
- Geisinger, K. (1994). Cross-cultural normative assessment: Translation and adaptation issues influencing the normative interpretation of assessment instruments. *Psychological Assessment*, 6: 304-312.

- Hill, M., & Hill, A. (2002). *Investigação por questionário*. Lisboa: Sílabo.
- Hulit, L., & Howard, M. (2006). *Born to talk: An introduction to speech and language development*. Boston: Pearson Education.
- Law, J., & Roy, P. (2008). Parental report of infant language skills: A review of the development and application of the communicative development inventories. *Child and adolescent mental health*, 13(4), 198-206. doi: 10.1111/j.1475-3588.2008.00503.x
- Leech, N., Barrett, K., & Morgan, G. (2005). *SPSS for intermediate statistics: Use and interpretation*. New Jersey: Lawrence Erlbaum Associate.
- O'Neill, D. (2007). The language use inventory for young children: A parent-report measure of pragmatic language development for 18- to 47-month-old children. *Journal of speech, language, and hearing research*, 50: 214-228.
- O'Neill, D. (2009). *Language use inventory: An assessment for young children's pragmatic language*. Canada: Knowledge in Development.
- Owens, R. (2005). *Language development: An introduction*. Boston: Pearson Education.