

A Comprehensive Assessment of Immigrant Students: low-income families' effects and school outcomes in second language development

Abstract: The language assessment in second language context is still a gap in Portuguese schools and at research settings. Comprehensive diagnostic procedures are expected to be explanatory and to provide classification about proficiency levels. Proficiency, development and application are three components involved in educational assessment, specifically in second language context. Diagnostic and placement should be responsive to ensure the academic success mainly in the first years of schooling. The current international approaches focused on in-depth and broader assessments with strong theoretical basis. Specifically, our research project is developed maintaining the principles of several benchmarks provided by ALBERTA, TESOL, TOEFL and other testing guides. Despite of Portuguese Second Language context, our sources are mainly American instruments regarding the great scientific evidence available. This study will examine the validity and prevalence of 4 specific tasks to differentiate 108 second language learners, considering the socioeconomic factor determined by current job situation of students' families. Immigration routes are mostly work-related and the professional situation of families is extremely diverse and might have influence in school outcomes of young students experiencing constrained economic environments. All the tasks were developed for the first levels of proficiency (A2-B1, according to European benchmarks), including subtests as main criteria of organization and different types of responses (multiple format), applied to a large sample (oversampling is recommended) of diverse students (with the migratory experience as a condition). Across a small scale exploratory study we will have useful information about the adequacy of the test for school staff members, for students and for specific research in second language. Data will be presented regarding the following items: verbal analogies, semantic associations, picture naming, and morphological extraction. The main focus will be on the evaluation of the cognitive academic language proficiency depending on socioeconomic backgrounds identified through the professional situation of two-parent families and attending to their job skills (graduate and non-graduate). The results confirmed the hypothesis that students from low income immigrant families experienced worst performance in general tasks. Implications will be discussed considering that limited socioeconomic families have more failure to provide their children cognitive stimulating activities inside home routines comparing to more stable immigrant contexts.

Keywords: assessment in second language, reliability, immigrant school students, low-income backgrounds.

Introduction

The recent studies in second language (SL) research are focusing on the impact of wide range of variables related to learning and teaching effects, in formal classroom and informal environments. Besides the age effect, home language variable is frequently studied to understand how particular language speakers easier achieve second or foreign languages than others speakers. One of the main limitations is that research in SL is especially developed to English as foreign language and also the perspective to analyze language groups and their processing to acquire new language is barely restricted to English domain (Geeslin & Guijarro-Fuentes 2006; Furman, Goldberg, & Lusin 2010). This fact explains how romance languages acquisition as second or foreign languages remain less studied in order to determine linguistic and cognitive profiles of different students in European classrooms (Lasagabaster & Huguet 2007; Leeman 2015). First language (L1) transference and interference explain circumstances of processing and of vocabulary acquisition which have different realization considering the target language. Learning English is certainly very different to learn Portuguese and additionally considering the type of home language of the learner which turns in diversity of cognitive strategies to be accounted in SL research (Lervag & Aukrust 2010). To identify the self-regulation strategies of SL learners is mandatory educational practitioners to have knowledge of cognitive functioning deducted from specific and oriented tasks administered to those learners. Assessment procedures and validated tasks are available mainly in English language and they

provide important guidelines and benchmarks to full adaptation of new instruments for other languages. Careful adaptation is encouraged to adjust tasks and contents to foreign languages settings. Response items and scores require specific terms or construction to have adequacy. Moreover in romance language learning context the self-regulatory strategies are distinct than other processing characteristics involved, for example, in Slavic or Camitic languages (Reljic, Ferring, & Martin 2014).

Last years of scientific evidence were interested in third language acquisition and this might help to understand the cognitive mapping of students during language learning. According to Davies (2003), regarding the theoretical arguments on cognitive involvement in SL, there is a “language-specific system” that is specified for particular stages of processing in new idiom and a “problem-solving system”. SL learners use both systems but in different manner considering age variability. Considering the phonological system of Portuguese language there is a deep complexity of sound system, mainly in vowels phonetics and diversity. Barcroft (2007) maintained that phonetic amplitude of languages, in English learning context, is irrelevant. Contrarily, we believe that assumption is serious limited when applied to other languages contexts considering that amplitude of specific systems like Portuguese is predictor of decoding difficulty and constraints in comprehensibility (Cardoso-Martins 2005). Portuguese is a marked writing system with transparent features that enhances the acquisition by other Romance languages speakers, but not in the same way for speakers of languages whose origin is in other families, be they Indo-European or not, such indo-aryan (e.g., urdu) or afro-asiatic (e.g., Arabic) idioms. Indo-aryan languages and Asiatic populations are of great interest for recent studies of SL learning constraints. Romance language learning has great expression only applied to Spanish which have importance mainly in American schools. Research in second language area focusing on Spanish speakers enrolled in second language settings, mainly English, is strongly related to the analysis of socioeconomic background of Hispanic population and the impact in school achievements and in the motivation toward second language and dominant country (Jesus & Xiao 2013; Quesada 2011; Valdés 2001).

SL learning is related to immigration routes lied on socioeconomic backgrounds that appears as an additional variable to understand academic achievement and specific performance in second language. Teachers’ community need to understand that second language learning requires an analysis that examines the proficiency diversity (certain proficiency in writing area would not be necessarily at the same level of oral production proficiency), the home languages diversity and families situation diversity. Parent’s professional situation is mostly identified, in immigrant minorities, as temporary conditions with serious constraints in cognitive stimulating practices at home (Mistry et al. 2008). Daily activities and families routines would restrict the availability of parent’s involvement in schools milestones established for their children (Becker 2009). Also we find that school prior experience is a variable to take in account for different immigrant groups behaviors (Keels 2009). Slavic population in Portuguese schools is well prepared (based on their schools systems observed in country of origin) and more “school positive responding”, while African students are at-risk with no such previous positive experience (and no structured school experience) and have significant failures in academic achievement. Socioeconomic factor and related effects as well specific results will be presented to compare Portuguese second language learners from different backgrounds in four tasks of vocabulary (semantic associations and naming tasks) and verbal reasoning (verbal analogy and morphological change).

Socioeconomic background factor as a correlate of academic achievement in migratory experience population

Language minority homes should be carefully studied in school environment to identify which languages are spoken at home, in what extent culture representations affect dominant culture and language, and which daily activities are students engaged with. Parent's professional situation determines daily activities and school routines. Jonsson and Rudolphi (2011) developed a recent study on effects in the educational careers of young immigrants immersed in Swedish schools. Non-European students are concluded as having more disadvantages in academic performance which could lead to school drop. Other second-immigrant generation with European origin has different behavior and choices. In other perspective, parent's involvement in schooling of their children will have impact in immigrant student's attitudes toward figures related to second language learning and to general cultural socialization (Poza et al. 2014). Parents with limited fluency in SL are in disadvantaged position to ensure attitudes of their children toward school and peers. Sociolinguistic profiles of families are important to describe limitations and the expected advances in learning from student's experience at the time of school entry (in arrival country). Family' background, home language, nationality, and age are main predictors to be acknowledged by teachers of foreign languages. Scientific studies focusing socioeconomic background and foreign language learning are scarce while this is widely studied concerning first language acquisition. We maintain that specific effects would be replicated in both foreign and second language contexts. Family socioeconomic status is a predictor of general academic learning and cognitive strategies improvement (Hoff 2003). Students whose parents differ in socioeconomic backgrounds are expected to differ also in their school learning activities attending to their language exposure and general cognitive activation. Interaction between students and their families will have repercussion on their academic performance. How and to what extent home interaction and diversity of environments might have impact in second language learning situation?

SL learners, despite of age effects in SL acquisition process, will have additional implications increasing their difficulty in school learning considering the cases of lower socioeconomic backgrounds that have implication in language development and generate high probability of slower rates in the learning process (Hoff, 2003). Immigration 'event' is not all correlated to lower backgrounds but, in fact, work-related migration motivations are more evident among Indo-Aryan languages and romance languages speakers considering the American destination (such Spanish and Portuguese languages speakers), while the Asiatic and essentially the Slavic populations are work-related immigration in European destinations (Keels 2009). Language support programs are more prepared and developed in American context since 60s while in the European countries that support is not well structured. One of the principal concerns is to provide families with educational materials to improve language skills at home which turn in disproportionate achievements and attitudes. Shiffrer et al. (2011) studied the disproportionate school behaviors among specific minorities considering sociodemographic variables and the disadvantages for education system disregard the second language learning context. Differences observed in socioeconomic backgrounds are differently perceived by Africans and Hispanics living in America (Zhang et al. 2012). On the other hand, part of the Asian population in the US has other posture and less difficulty in social adaptation which is favored by economic and political power of China explaining how K-12 American schools are increasing their foreign language programs to promote Mandarin education (Lindholm-Leary 2011). In Portugal Chinese immigrant population, differently from other Asian linguistic minorities, has significant expression and similar economic reasons are observed in pursuing foreign language programs. On the other hand, in Portugal, Slavic immigrant population and African newcomers are frequently associated to lower incomes and insufficient home support. Both Slavic and Mandarin language speakers present high levels of qualification and school preparation mainly regarding adolescents and adults which have impact in academic scores in the dominant country. In Portugal, Hispanic population has no such great expression as observed in American scenario.

Disadvantageous situations related to socioeconomic factors are studied to understand how low scores of native children in specific skills, such as reading, explain dropouts and failure to achieve high school graduation (Hernandez 2011). In first language context it is well documented that maternal interaction and linguistic stimulation from family routines would be crucial in younger ages for the language ability and sociolinguistic skills. On the other hand, second language context presents different conditions mainly taking into account the amount of exposure and length of time in dominant country. Additionally, there is the environmental specificity explaining in which extent specific environment aspects predict development variation in several cognitive abilities and language learning situations. For immigrant students whose families have no time expending at home becomes more difficult to enhance language proficiency in mother tongue (Becker 2009; Mistry et al. 2008). Dual problematic scenario: to improve both first and second language proficiency growth. Immigrant school population struggle with a learning conflict related to both languages acquisition: home and foreign language. This reality could be biased considering the school approaches for the academic support that countries and their educational systems have to offer to immigrant students (Halle et al. 2012). Children and adolescents from low socioeconomic status and immersed in foreign language learning programs are identified at-risk students in any school system, not only in USA (Crosnoe and Turley 2011). Further studies should be focusing foreign language learners from other dominant language contexts such romance languages learning and must be replicated certain hypotheses previously tested in literature of English foreign language acquisition (Jesus et al. 2013; Reljic, Ferring and Martin 2014). Parental involvement, parents' level of education and home interactions, regarding languages spoken, would be the main factors to be observed in order to understand academic behaviors of young students immersed in diverse language programs and in mainstream classrooms. Early care prior to school entry and availability of services to accommodate immigrant students and their families would be also important to account in these studies design (Halle et al. 2012).

Method

This study is part of a larger post-doctoral empirical research currently in process in Portuguese schools to assess cognitive and linguistic profiles of immigrant students – second language learners. Understanding the empirical planning, the main goal of the larger project where this present paper fits in is to develop a diagnostic test in comprehensive format of 15 tests, adapting specific assessment landmarks of previous international studies on SL testing (Alberta Education, Teachers of English to Speakers of Other Languages (TESOL), Test of English as a Foreign Language (TOEFL), Diagnostic English Language Needs Assessment (DELNA), Woodcock-Munoz Language Survey Revised (2005), between other sources). The present study reports specific corpora of data regarding verbal behavior of 108 non-Portuguese language learners, differentiated by different families background (based on employment condition of parents) only regarding the tasks of verbal analogy, picture naming, semantic associations, and morphological extraction.

Questions of the study

- 1) Learners' small vocabulary is in all probability the result of limited receptive and expressive language abilities which have impact in language development and suggests deficits in early stages of SL learning. That vocabulary size factor would be intrinsically depending on literacy experienced at immigrant homes, where several languages could coexist.

- 2) Socioeconomic background is certainly an influence for cognitive and academic performance of immigrant students in the host country schools. Low socioeconomic status are probably correlated to poor learning and low performance in second language testing context.

Main hypothesis of this study:

Home environment will have impact in tasks performance, attending to employment condition of immigrant families. Low-income families (identified in cases of unemployed parents or with current unspecialized jobs) might explain low performance in Portuguese second language (and applying general academic competencies).

Participants

108 Portuguese second language learners (later arrivals, mainly since 2010), mean age = 13 years old, from basic and high school levels. Almost students were born outside Portugal (only 10 were born in Portugal but have emigrated before schooling) and first school instruction was mainly in their native countries. All the students came from lower to middle socioeconomic backgrounds (we have identified all the current jobs of parents/tutors). There are no disabled individuals and they are right-handed (laterality was also identified). All students are from public schools in the same geographical area: Lisbon district. This sample is heterogeneous, intentionally, with regard to nationality and home languages. 23 nationalities and 28 different languages were observed. 32% are mandarin speakers, the most representative home language in this group of study. Using the categorization by language families: 33 speakers of mandarin, 32 speakers of romance languages, 14 speakers of slavic languages, 11 speakers of creoles, 10 speakers of indo-aryan languages, 2 speakers of afro-asiatic languages; 14 students arrived between 2001-2005, 21 between 2006- 2009, 55 between 2010 - 2014. 61% arrived in the most recent period.

Procedure

The collection of data is scheduled during 2014 in Portuguese schools, and began in May 2013. The four tasks administered are incorporated in a 15-test diagnostic in validation process. The questions format is short and open-ended, also with scale format. Scoring format is based on the original classification criteria of the tests. After the total score for each participant, groups are compared according to specific independent variables (such age and home language). In this first study of SL testing procedures adaptation we observed psychometric properties of the tests and only morphological extract test present limited internal consistency (.53) which would be argued based on principles of testing construction for Portuguese population and romance language speakers. Original Extract Test in English version presented cronbach's alpha coefficient of .93. Students were asked to complete full tests battery during approximately 60 minutes, in classroom evaluation context (group session but individuals were tested individually). The tasks were administered since May 2013 in schools, after the authorization of schools and the selection of immigrant population that responded to the main criteria (7-17 years old, immigrants or with no schooling experience in Portugal before emigration, with proficiency between A1 and B1 levels considering Portuguese language, diversity of languages spoken, public schools). All prompts were disposed on paper and on a computer screen one at a time, to listen and register the sounds and texts. In the specific tasks reported at this study no computer was needed, only paper. Treatment of data was accomplished by using the SPSS program (version 21).

3.3. Materials

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Verbal Analogy Task: 6 items (based on Verbal Analogies Test n.º 2 of “Woodcock-Munoz Language Survey-Revised - WMLS-R 2005) with internal correlation consistency (cronbach’s alpha) of .60. Score: 1 point for each correct answer (total score: 6 points). Example of sample items: “Estrela está para céu assim como peixe está para _____” (fill in the missing word by logic association: ‘Star is for sky as fish is for ____.’).

Semantic Associations Task: 6 items (based on semantic relationships from the tests battery of “Woodcock-Munoz Language Survey-Revised - WMLS-R 2005). The Portuguese adapted task showed to be reliable with internal correlation consistency of .86. Score: 2 points for each completed correct answer (total score: 12 points). Example of sample items: “rico (‘rich’)____(synonymous) ____ (antonymous)” (fill in the missing word by identifying the correct synonymous or antonymous of the presented word).

Naming task: 36 items (based on the original task of Portuguese diagnostic test from Ministry of Education). Cronbach’s alpha of .94. Total score: 12 points. Students are introduced to 36 image cards and they are asked to write the name of each image on a paper.

Morphological Extraction Task: 4 items (based on August et al. 2001) with cronbach’s alpha .53. Score: 2 points for each completed match, 1 point for each partial answer (total score: 8 points). Example of sample items: Palavra: Amizade/ Frase: “Os colegas da escola são meus _____” (Word: friendship/ Sentence: “Colleagues from school are my _____”).

Results

Might home environment have impact in tasks performance, attending to employment situation and families’ economic stability?

Analysis of variance (one-way ANOVA) was carried out to examine the association between socioeconomic situation and the performance scores gathered from the four tasks recently administered. The socioeconomic situation was determined by the identification of the current job of immigrant parents. Based on professional conditions and different jobs nature of immigrant families in Portugal, considering this group of study, three categories were classified: specialized workers, unspecialized workers, and unemployed (but looking for a job). Respecting the employed workers, the specialization respects parents who are graduated at specific levels and have training to take place in a job category (and currently active in job market, in Portugal). Within the unspecialized workers we found several houseworkers and cleaning related jobs. Statistical differences were significant regarding the verbal analogy, the semantic associations and the extraction tasks. Students raised in unemployed families contexts showed to have worst performance (see table 1) in both tasks comparing to students whose parents are employed and related to unspecialized jobs. The statistical difference was only observed between children of unemployed and unspecialized workers. Attending to naming task, the individuals revealed no differences depending on families’ professional condition.

Table 1. ANOVA analysis: comparison of verbal behaviors depending on socioeconomic environment determined by families’ job situation

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.

Naming task	Between Groups	163,390	2	81,695	1,417
	Within Groups	2768,257	48	57,672	
	Total	2931,647	50		
Verbal analogy	Between Groups	19,015	2	9,507	4,411
	Within Groups	107,778	50	2,156	
	Total	126,792	52		
Semantic associations	Between Groups	77,754	2	38,877	3,988
	Within Groups	487,378	50	9,748	
	Total	565,132	52		
Morphological change	Between Groups	34,586	2	17,293	3,433
	Within Groups	251,867	50	5,037	
	Total	286,453	52		

Discussion

These results have implications considering young learners who are raised in immigrant families, disregard their country of birth. New generation of immigrant students have differences justified by circumstances related to level of literacy exposure that home backgrounds might offer to their children. Additionally to literacy experience factor, diverse home languages could coexist and with no learning oriented environment that enhances the cognitive stimulating and conformity with school goals. Distance between the families and the school routines might be a limitation that requires further examination to understand the impact in education of immigrant new students. Lower income families are expected to have influence in student's performance in academic competences overall. Specifically in this empirical study, immigrant children are responding less appropriately to semantic relationships and morphological modifications when they have origin in disfavored family' backgrounds due to job limited conditions. Looking for a job could be stressful, critically for families with migratory experience considering that immigration routes are greatly work-related. Stressors from professional limitations experienced at home are felt by children which has repercussion in school outcomes and learning rhythms.

Additionally, children from lower income families struggle with the differences between home and second languages. The consistency of languages is the main factor that explains

transference strategies across languages. According to Lervag and Aukrust (2010) the decoding demands more effort in inconsistent orthographies like English and would be faster in languages like Spanish and German. Portuguese language would be identified as a consistent system so the hypothesis would be based in facilitated learning for second-generation immigrant individuals in Portuguese speaking countries. Concerning extraction test, participants from lower socioeconomic backgrounds have similar limited behaviors during morphological changes task. This task demands greater abstractness at cognitive level and executive effort which is associated to older ages (DeKeyser et al. 2010) and we expect to have correlation also to literacy exposure. This exposure does not improve in low income families with job constrained situation. Moreover the morphological awareness depends heavily in “print exposure” provided by textbooks in foreign language (Zhang and Koda 2013) but the assets (resources such as textbooks for language support) of second language learners could vary depending on conditions and time provided by families, being critical in disfavored contexts.

Western European countries faced in the past years an emergence of immigrant second generation tied on low income families looking for new job conditions in European countries. Until now Europe is in adjustment process. In some cases like Portugal there are no full conditions of hopeful living for newcomers mainly with graduate skills. This is a great concern to have in mind when a teacher accomplishes a diagnostic over immigrant new students. Thomson and Crul (2007) developed a comparative study to explore job opportunities attainment of children born to postwar immigrated population in different European countries, considering after the school be completed in the dominant country. Practices of schools and labor market are analyzed in order to identify how countries are responding to second generation success between school accomplishment and job starting. In the other hand, valuable research was done on the school readiness of children from poor immigrant families to evaluate the nativity-based factors and the condition of fragility of immigrant students compared to native peers (De Feyter and Winsler 2009). Other authors (Winsler et al. 2003) analyzed outcomes of groups also with origin in low income families but considering the bilingual skills development of minorities such Spanish speaking children. The attendance to bilingual language programs could differentiate academic and cognitive development between children who attended those programs and others that remain at home. American research context addresses with frequency Spanish speaking children in order to understand the correlation between English limited proficiency and their common poor environments.

Fifty-six percent of young children from immigrant families are growing up in poor contexts (Capps 2005) which lead us to think about diversity of minds and cognitive profiles attending to schools. In United States immigrant children are largely growing and educational polices take much responsibility to be accountable for the children and the families management. After-school hours should be further examined attending to the possibility of language programs that requires longstanding from children, but compensate poor cognitive stimulating activities at home. In those after-school opportunities the institutions are improving literacy and completing school gaps of low to moderate income children (Halpern and Spielberger 2002). For European, and specifically for Portuguese school context, after-school hours would be considered but the priority is to provide more support inside syllabus of Portuguese schools especially after a diagnostic comprehensive test with more complete information that differentiate students. This test, with validated measures, will be helpful to identify which language groups, in each specific school or district, are in critical situation regarding language development and additionally to observe home backgrounds and their needs.

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