ORIGINAL ARTICLE

Asas da Florestania: languages and cultures at play in the forest-based citizenship literacy program in Brazil

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ABSTRACT

This methodological article applies the Continua of Biliteracy (Hornberger, 1989; Hornberger & Skilton-Sylvester, 2000) onto the curriculum and human resources of *Asas da Florestania Infantil*, namely *Asinhas*, a preschool initiative with United Nations Educational, Scientific and Cultural Organization (UNESCO) recognition for its startling approach to the Acre an multilingual setting in northwestern Brazil. Overseen, forest-dependent, Acre's identity is a traditional and hybrid-culture melting pot with sustainable rubber tapping advocates, indigenous land claimers and Haitian refugees, where languages and literacy converge to legitimate the Brazilian linguistic and cultural diversity. Initially funded by national communication mogul *Rede Globo* and the World Bank, today, it also responds to municipal, state, and federal accountability. We concluded that *Asinhas'* recruitment of *Educational Agents* to promote meaningful forest-based content at an anthropological home visits approach is an outstanding decentralization and multilingual setting and curriculum acknowledgement, despite its population under representation and scaling-up limitations.

KEYWORDS: Continua of Biliteracy; *Asas da Florestania Infantil*; Acre; multilingual setting and curricula.

Asas da Florestania: línguas e culturas em jogo no programa de letramento e cidadania na floresta brasileira

RESUMO

Este artigo metodológico aplica o Contínuo de Biletramento (Hornberger, 1989; Hornberger e Skilton-Sylvester, 2000) no currículo e recursos humanos da *Asas da Florestania Infantil*, nomeadamente "Asinhas", uma iniciativa pré-escolar com reconhecimento da Organização das Nações Unidas para a Educação, a Ciência e a Cultura (UNESCO) pela sua surpreendente abordagem para o cenário multilíngue no Acre, noroeste do Brasil. Por ser dependente da floresta, a identidade do Acre é um pote de fusão de cultura híbrida e tradicional com defensores de borrachas sustentáveis, reivindicadores de terra indígenas e refugiados haitianos, onde as línguas e o letramento convergem para legitimar a diversidade linguística e cultural brasileira. Inicialmente financiado pela rede de comunicação nacional Rede Globo e o Banco Mundial, hoje também responde aos governos municipal, estadual e federal para prestação de contas. Concluímos que o recrutamento de agentes educacionais da Asinhas para promoção de conteúdo significativo com base na floresta, através de uma abordagem antropológica de visitas domiciliares, é uma excelente concepção de descentralização e reconhecimento de ambiente e currículo multilíngue, apesar da sua sub-representação populacional e das limitações de ampliação.

PALAVRAS-CHAVE: Contínuo de Biletramento; *Asas da Florestania Infantil*; Acre; contexto multilíngue e currículos.

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1. INTRODUCTION

According to the nomenclature adopted in the sixth edition of the *Publication Manual of the American Psychological Association* (2010), methodological articles are not designed to present results. Instead, studies of this kind aim at providing through and stepwise details for well-read researchers to assess the applicability of the methodology herein analyzed through illustrations, new advances in one specific domain that is relevant to its systematic review.

If there is one domain in the large field of bilingualism that requires further research, it is that of biliteracy and/or multiliteracy, terms that may be used interchangeably, given there is inconclusive debate about what to call those children who are being taught how to read in more than one language at both formal and informal educational settings. For the sake of this study, biliteracy refers to both terms, since one misconception about biliteracy is that reading, writing, listening, and speaking skills are developed simultaneously or at the same level (Bialystok, 2007; Bialystok, Luk & Kwan, 2005). Kabuto (2011) supports the view that biliteracy does not necessarily mean people have the same set of abilities in all the languages they know. Similarly, Reyes (2006) observes that while biliterate people may be able to read in one language, they may not be able to speak it, when she warns "we need to adopt both bilingual and developmental lenses when analyzing children's language and literacy competencies (p. 269)." By competencies, the author refers to skills required in different genres while reading, writing, listening and speaking.

Biliteracy has a large impact on curriculum design, student population acknowledgement, and professional development. Moreover, in hybrid regions of bordering countries and various official and indigenous languages at play, biliteracy takes up a complementary role of intercontinental schooling initiative. In order to understand this role, we will take one step back and look at the concept of literacy itself.

Literacy can be seen as the purest form of culture democratization, as it propagates a social front of bridging the reading and writing skills to connect the learner's constructed experiences to everyday use (Soares, 2004). In other words, literacy legitimizes the subject's needs and interests by incorporating their own sources of information that will be considered as valid input for a person's life outside school, as well. In a melting pot as this study's subject setting where its learners bring in their indigenous ancestry, foreign identity and refugee agenda, and rubber tapping political backgrounds; then, languages and cultures unfold onto innumerous bilingual learning scenarios that can be incorporated to different extents so as embody biliteracy, *per se*. Therefore, to serve the purpose of this study, biliteracy is seen herein as a lifelong social and developmental process that starts long before the child's entrance to the formal educational system, and continuously cycles around school, home, and community in order to make meaning out of the world around the learner in more than one language and content (Bower, 2014; García & Kleifgen, 2010; Genesee, 2015; Kabuto, 2015).

Literacy is a loan term borrowed from the English language and applied to Portuguese. It is formed by the word 'letra', which means *letter* in Portuguese, and the suffix 'mento', which means *process*. Therefore, *letramento* literally means *letter processing*. In light of that, literacy in Brazil is being referred to

as the transition from the old model of memorization and decoding to the engaging process of promoting critical thinking through the selection of relevant material when schooling a citizen. The importance of looking into the pedagogical program *Asas da Florestania Infantil* lies on the fact that the concept of literacy is being built up in Brazil, as it is still considered rather theoretical (Soares, 2004). Until not long ago, reading, writing and counting were taught as skills that were completely separated from an everyday use, let alone the acknowledgement of such skills in the present indigenous languages.

Portuguese is the overall language of instruction in Brazil, despite its various indigenous languages that are overly ignored. Throughout history, Portuguese language instruction has been mostly characterized by alphabetizing processes with decontextualized, mechanical, letter-phoneme to syllable-phoneme systems, at times. However, one can see a transition to a more inclusive approach with Spanish, Haitian Creole, indigenous languages being acknowledged via *Asas da Florestania* – the subject of this study – in the northwestern border state of Acre, Brazil.

1.1 Background

Most Brazilians cannot locate the state of Acre in the map (Figure 1). Forest-dependent, Acre borders the countries of Peru and Bolivia with Spanish as their predominant language in school. Acre's identity is a mixture of traditional and indigenous cultures. In order to attend the need of its riverside residents who would drop out of school in fear of facing flood, wild animal and other dangers, the state of Acre created *Asas da Florestania* (The Forest-based Wings Program). In fact, the term *Florestania* is a combination of the words forest (*floresta*) and citizenship (*cidadania*) in Portuguese, as in "forest-based citizenship". From its very beginning, this neologism proposes the tone of *Asas* program: highly engaging and representative of its student population.

Figure 1. Acre State. Retrieved 10 May 2017 through CreativeCommons.org, non-profit organization devoted to expanding source range for legal share & search. Available at: <https://upload.wikimedia.org/wikipedia/commons/thumb/8/84/Acre_in_Brazil.svg/2008px-Acre_in_Brazil.svg.png>.

Initially developed to attend the second phase of compulsory education in Brazil (Primary Education, from 6th to 9th grade back then)[1], *Asas da Florestania* was extended to high school, namely Secondary Education, from 1st to 3rd year in 2008. In the following year, *Asas da Florestania Infantil* (the forest-based little wings) for 4-5 year olds, the Early Childhood Development Program (ECD), was launched for preschool and Primary Education. The Brazilian Constitution shifts the responsibility for ECD Programs to the municipalities. However, in order to maintain its education indicators at such satisfactory levels, the Acre government supported the program development and promoted social inclusion, especially to those children in remote rural areas (Fernandes, 2012).

Education in developing countries, such as in Brazil, has experienced alternated moments of more or less investment throughout history. In postmodern society, literacy has raised monetary resources from investors after the Human Development Index (HDI) has proven to increase with education. Despite a significant HDI increase, the 2015 UNICEF Report stated that Brazil's priority is the access of compulsory education to the 13 million children in poverty in northern regions.

Indiscriminate access to Education is one of Brazil's greatest challenges in rural areas, as well as in economically challenged metropolitan centers. Many isolated communities only count on multilevel classrooms and the same teacher up to the first of three phases of compulsory education in Brazil. Children and teenagers have difficulty to further their studies (do Nascimento Araújo, 2011; Fernandes, 2013). Yet, Acre and its low demographic density (around 4 inhabitants per square kilometer) made of municipalities that are mostly made up of riverside communities, extractive reserves, and remote settlements, is gradually ameliorating its education and HDI by implementing sustainable curricular forest resources (Albuquerque, 2016).

1.2   Purpose of the study

Due to the intertwined issues that compound biliteracy, there are many possible lenses and literature debates that can be referred to as the theoretical foundation for the complexity surrounding biliteracy. It is not the purpose of this study to exhaust, nor is it to place mutually excluding commensurations over the academic debate on the issue of biliterate settings.

Asinhas model gives us the opportunity to look into research, teaching and language planning aspects of a linguistically and culturally diverse setting under the lens of the Continua of Biliteracy by Hornberger (1989) and Hornberger & Skilton-Sylvester (2000) – a theoretical framework used to understand biliteracy as a home-community-school continuum and a lifelong process that goes beyond school to make meaning out of the world around us in more than one language. Therefore, as mentioned in the Abstract, the Continua of Biliteracy will be applied to *Asinhas*' curriculum design and human resources as the home-community-school continuum delimitation.

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[1] Importantly, compulsory education in Brazil starts at the age of four and continues until the age of 17 currently, as pointed out by an anonymous reviewer.

For that reason, the purpose of this study is to scrutinize *Asinhas'* setting by juxtaposing the project's infrastructure of *Educational Agents*, forest-based content, and home visits with the Continua of Biliteracy by Hornberger (1989) and its visitation by Hornberger & Skilton-Sylvester (2000) to see how the Acre an biliterate and multilingual settings are acknowledged at an extent that favors the child's whole development through planned content and methodology. In light of that, the overarching question is: to which extent are all identities and languages represented in terms of bilingualism, teaching practices, and resource at this particular riverside indigenous 'forest-based citizenship' program? The languages and the cultures that are at play are also pinned as *current* due to the *hybrid status quo* of the program's population sample (Figure 2). This setting is in constant reconfiguration. Passersby go up the marginal routes of the Amazon River, where biliteracies include native fauna and flora expertise, rubber extraction and political jargon, and asylum agenda knowledge.
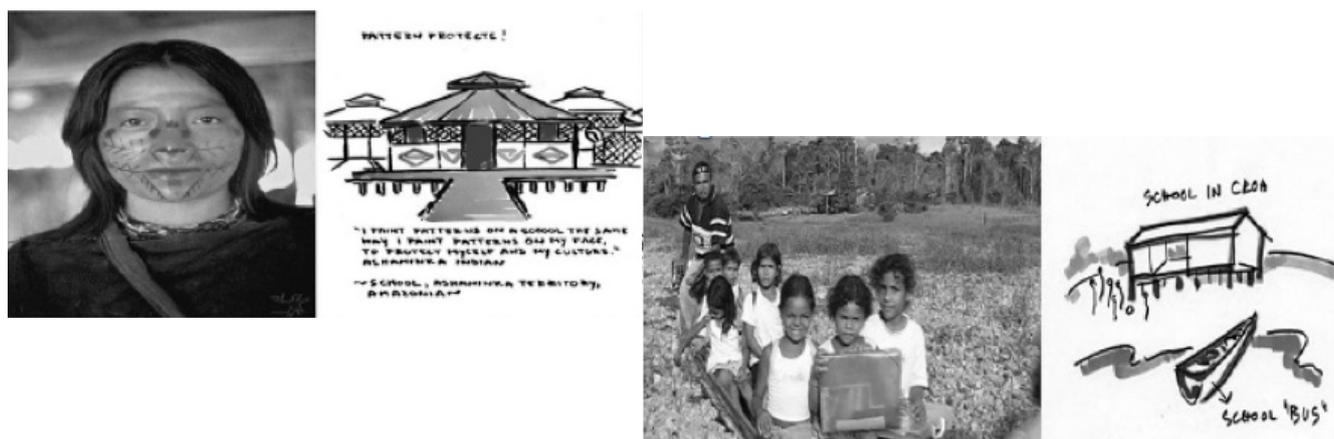

Figure 2. Left: Ashanika Indian, Acre. Photo by Mauro Almeida. Courtesy the artist and Galerie Nordenhake, Berlin. Right: School Bus, Croa Community, Acre. Courtesy the artist and Max Protetch Gallery, New York. Marjetica Potrč, drawing for project *The Struggle for Spatial Justice* (A luta por justiça espacial) for 27ª Bienal de São Paulo. Retrieved 10 May 2017 through Creative Commons.org, non-profit organization devoted to expanding source range for legal share & search. Available at: <https://umaincertaantropologia.org/tag/participatividade/>.

2. ACADEMIC DEBATE: THE *ASINHAS* SETTING AND THE CONTINUA OF BILITERACY JUXTAPOSITION

Hornberger (1989) and Hornberger & Skilton-Sylvester (2000) designed the Continua of Biliteracy (COB) as a framework to situate teaching, research, and language planning in linguistically diverse settings (Figure 3). COB is claimed by its authors to be a nest and an intersection of relationships among the diverse contexts, forms of development, contents, and media in which biliteracy is present. COB is not necessary a table for punctually locating or positioning particularities of a program such as *Asinhas*, but to serve as a fluid continuity, where the process is informing.
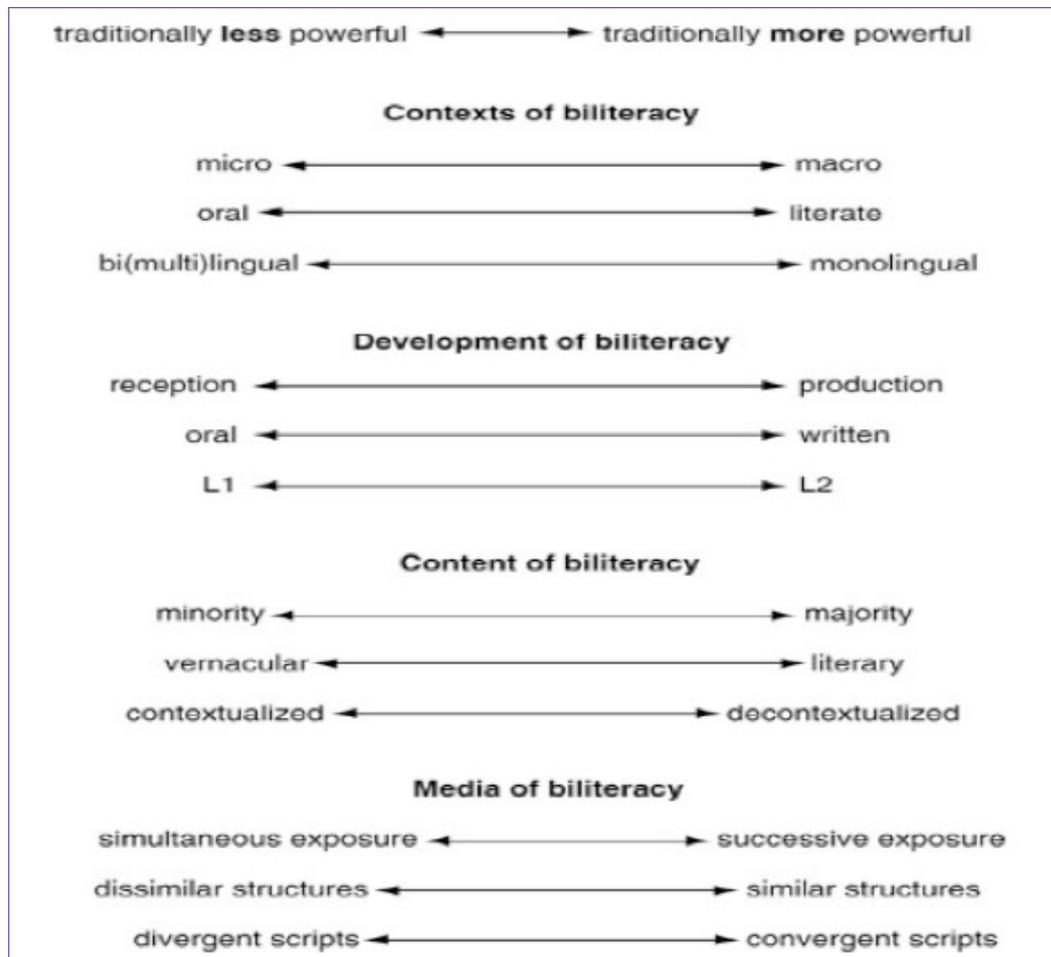
Figure 3. The Continua of Biliteracy (Hornberger, 1989; Hornberger & Skilton-Sylvester, 2000).

The picture above shows how the Continua of Biliteracy (Hornberger, 1989; Hornberger & Skilton-Sylvester, 2000) use the notion of intersecting and nested interrelationships among four analytical endpoints: of context, media, content, and development. Context relates to national policies, media to vehicles, content to meanings, and development to societal tendencies of biliteracy. What is a dimension in real life? How can we define a dimension in practical terms? Dimensions are the variables surrounding a child's biliterate reality, or the description of the child's situation in biliteracy. How are these dimensions interrelated? There are overlaps when defining one's biliteracy, there may be a need of using a midterm concept. These four endpoints address when, where, what, and how biliteracy varies in a scale from traditionally less powerful to traditionally more powerful languages. COB accounts for the intertwinement among planning, research, and teaching when two languages are at play. Each of these intertwinements is applied at *Asinhas* model next.

3. METHODOLOGY

Since COB's objective is to situate research, teaching, and planning in linguistically diverse settings, they are introduced here as my choice of

theoretical framework as they incorporate a school-home-community cycle that converge teaching, research, and planning into biliteracy – the state of being literate in more than one language (Hornberger, 2004; Genesee, 2015; Kabuto, 2015). Above all, the Continua of Biliteracy (Hornberger, 1989; Hornberger & Skilton-Sylvester, 2000) propose infinite combinations of interrelated dimensions in these analytical endpoints (context, development, content, and media), and not opposing ideas.

3.1 Instrumentation

This article identified *Asinha's* policy, its teacher training, home visit model, and forest-based content as instruments to answer the following question: to which extent are all identities and languages represented in terms of bilingualism, teaching practices, and resource at this particular riverside indigenous 'forest-based citizenship' program? The methodological approach adopted herein is that of sample gathering and analysis of secondary data in order to explore the program's effectiveness in relation to its setting, participants, and material as a qualitative case study. Further, this article will allow the reader to compare and implement the proposed method with those in current use, where empirical data are illustrations of the methodological approach.

The instrumentation employed as secondary data is composed of national population censuses and governmental reports of public access, the World Bank's Open Knowledge Repository and analysis of its class observations documentation, state level organizational records, municipal levels cover sheets that were originally collected for other research purposes, besides the most recent publications and relevant literature, eminent articles, and current dissertations conducted about *Asas* and *Asinhas* nation and worldwide. As for the qualitative research rigor and trustworthiness, didactic material samples were collected and analyzed in terms of curriculum development.

Moreover, the Continua of Biliteracy (Hornberger, 1989; Hornberger & Skilton-Sylvester, 2000) serve as the theoretical framework to triangulate governmental planning and *Asinhas'* sustainability as follows: they are applied as the conceptual framework to situate *ad hoc* instruction and research, under which we find teaching, home visiting, and content alignment.Needless to mention, whereas the theoretical framework describes a broader relationship between things, the conceptual framework defines this relationship by specifying what exactly will be explored (Creswell, 2013).

3.2 Sustainability

At COB's language planning level, there is the micro-macro context, where core curriculum issues can be analyzed. The establishment of a core curriculum has proven to be challenging in Brazil. Brazil's biggest academic gap lies between the transition from theorization to teaching practices—the consonance between the multifaceted universe of school institution and its protagonists, as Kleiman (2008) puts it, or the implementation of the national educational blueprint at all levels. In light of that, the Brazilian population, as well as the most renowned literacy researchers and/or schools

of thought usually refer to two trustworthy and updated federal documents that rule Education with capital E: the Brazilian Law of Directives and Basis for National Education (Lei de Diretrizes e Bases – LDB), and the National Plan of Education (Plano Nacional de Educação – PNE). Both LDB and PNE discourse about the foundation of literacy, not only at state level under which *Asinhas* is ruled, but also at federal level (Kleiman, 2010).

Regarding Brazilian Education regulation, the LDB and PNE policies state that:

> Article 23. Basic education may be organized in annual grades, semester periods, and regular alternations of study periods, and non-serial groups. It must be based on age, competence and other criteria, or by learning process, when recommended so [...].
> § 2. The school calendar shall be adapted to local, climatic, and economic peculiarities at the discretion of the education system, without thereby reducing the number of hours of instruction provided in this Statute [...].
>
> Article 26. Primary and Secondary Education curricula must have a common national basis to be supplemented by a diversified part in each educational system and in each school establishment, in observance to regional, local, societal, cultural, economic, and learners' characteristics.
> § 1. Curricula must necessarily include Portuguese and Mathematics studies, Physical and Natural World sciences, as well as Social and Political knowledge, especially concerning the Republic of Brazil.
>
> Article 28. In providing basic education for rural population, education systems will promote the adaptations necessary to incorporate the peculiarities of each region's rural life, especially
> I – curricular contents and methodologies that are appropriate to the real needs and interests of rural students;
> II – own school organization, including the adaptation of the school calendar to the phases of the agricultural cycle and climatic conditions;
> III – adequacy to the nature of work in rural areas.
> (List 1: *Highlights of the Brazilian Educational Blueprint*)

Albuquerque (2016) points out that the legislation excerpt above is a demonstration that, although the Brazilian Constitution requires certain specificities to be abided, there is some resistance that distances the national blueprint from standardized models, and consequently, favors adaptation to each reality. This somewhat resistance-flexibility strand not only enables the design, but also guarantees the sustainability of programs such as *Asinhas* to attend children from biliterate settings and bilingual households. One instance of COB's application of contextualized-decontextualized content is how Article 31 lays the minimum instruction hours for pre-school program as 200 days, divided in four hours a day, with a total of 800 hours of instruction. However, Article 23 breaks cycles into regular and non-serial periods of alternation with observance to local pertinent issues and realities.

It is the state responsibility a) to guarantee ongoing training on the program methodology; b) to supply didactic and pedagogical material; c) to organize and maintain a partnership management with the municipalities; and d) to monitor and evaluate agents and supervisors. The municipalities must

a) mobilize communities to implement the program; b) enroll the children; c) assist agents and supervisors in designing activities for the children; d) carry out regular pedagogical support; and e) maintain a municipal coordination.

Last, given that the state of Acre works in cooperation with the national government to enforce immigration laws welcoming asylum seekers, rubber extrativists, and roaming communities, and to provide indiscriminate access to education at this biliterate setting made up of Portuguese, Spanish, Haitian Creole, French, and local indigenous languages, three COB's dimensions are foreseen here: context with the bi (multi) lingual-monolingual endpoints, development of L1-L2, and minority-majority analytical endpoints.

3.2.1 Polyvalence at teaching

At teaching level, one possible application of COB to *Asinhas* model is the continua's development and media analytical endpoints to the program's teacher development process. Since faraway areas are not necessarily the most appealing workplaces, one *Asinhas* teacher, namely *Educational Agent*, teaches one group. The *Educational Agents* are selected after a simplified process due to the critical shortage of professionals. They are hired temporarily with renewable contracts.

COB's media of biliteracy can also be applied to *Asinha's* teachers to describe the *Educational Agents*' backgrounds. Media comprehend simultaneous-successive exposure, dissimilar-similar structures, and divergent-convergent scripts, and these three dimensions are applied to analyze *Asinha's* teachers or *Educational Agents*. *Educational Agents* must be at least 18 years old, and have a diploma or be enrolled in high school. They must also be creative, responsible, flexible, and a team player. The Secretariat of Education in Acre (SEE 2009), which rules both *Asas* and *Asinhas* programs at municipal level, expects an *Educational Agent* to have thorough knowledge of the program, to participate in the pre-services opportunities and professional development courses, to turn in the reports, to promote research and experimentation, and to apply the teaching practices proposed by the programs in the Professional Development sessions (Figure 4).

Figure 4. Asas da Florestania Infantil and its Educational Agent Professional Development. Image available at Acre State Agency website. Retrieved on 10 May 2017 from: <https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&ved=0ahUKEwiK q5bB6-XTAhWLLyYKHSjgDl8QjhwIBQ&url=http%3A%2F%2Fwww.agencia.ac.gov.br%2Fgoverno-entrega-kits-do-programa-asas-da-florestania-no-vale-do-jurua%2F&psig=AFQjCNEjnpu_87qSOh7GNdy_OQkz0S6ZoA&ust=1494523337173673>.

Since the 2009 School Census showed that most regular schools in Acre (56%) count on only one room, there are no principals or other professionals working *in loco* (Fernandes, 2012). The regional education centers are responsible for both continued education programs and teacher training, and they meet every fortnight. There is also an *Educational Technician* who visits the program every 3 months. Cosmo Costa Benigno, a bachelor in Physical Education and *educational agent* for 6th grade in Xapuri, explains the meetings help him to plan classes, "The supervisors clear doubts and place school supply orders." These *Educational Agents* themselves are community high school residents or have recently graduated from high school. They go to the children's houses twice a week, and follow a 2-hour program with nursery rhymes and drawings.

There are four 40-hour training sections a year for both agent and supervisor. They cover (i) the optimized use of the program's didactic material; (ii) house planning (children's and mother's activities); and (iii) children's progress evaluation. Furthermore, the supervisors are trained on how to monitor and support the agents, as well as on how to promote the core elements of the program. The supervisors visit the communities twice a month to guarantee adherence to the program. The Secretariat of Education also supervises the municipalities once a month to review feedback and plan program sustainability (Fernandes, 2012). Continued professional development is divided into four modules: study group and planning (group meeting to exchange ideas and reports), pedagogical orientation (meetings with the supervisor), monitoring *in loco*, and distance education (monthly correspondence with the report of the activities developed).

3.2.2 The home visit model

Difficulty in transportation led to the home visit model. Similar educational models have been reported to be successful in riverside communities around the world. Riverside residents lead their lives around the tides and other nature markings that often restrict their commute, as COB's contextualized-decontextualized analytical endpoints under the content dimension. The *Educational Agent* sets up visits to have a greater reach of neighboring families' children, all gathered into one house along the rivers and communities at a ratio of kilometers. One of the houses in the community is selected to receive all the children in the community. On average, an *Educational Agent* teaches five families and around five to seven children who live close to one another.

Most of the school activities are held in houses' backyard (Figure 5). The *Educational Agents* are trained to acknowledge the venue's natural resources and their teaching surroundings, such as local plants, seeds, and clay as molding dough, to stimulate creativity, and most importantly, to incorporate nature through the local fauna and flora biliteracy. *Asinhas* (SEE, 2009) reinforces that practical experiences are part of the program's methodology and are essential for the development of the learner as a whole, as foreseen in COB's oral-literate analytical endpoints under the context dimension.

Figure 5. Left: The home visit model. Retrieved on 10 May 10, 2017 from: <http://www.see.ac.gov.br/portal/images/ano/2014/asasrevista3.JPG>. Right: Educational Agent in transit to the riverside community house. Retrieved on 10 May 10, 2017 from Albuquerque, K.C.C. *Asinhas da Florestania e o processo de escolarização de crianças amazônidas*. Master Degree in Psychology, Universidade Federal de Rondônia, Porto Velho, Brasil. 2016. Available at: <http://ri.unir.br:8080/xmlui/bitstream/handle/123456789/1432/Kelly%20C.%20C.%20Albuquerque_Asinhas%20da%20Florestania.pdf?sequence=1&isAllowed=y>.

3.2.3 Content alignment

Asinhas' curriculum is divided in four major axes: Verbal Language, Literacy and World Knowledge; Nature, Society and its Relations; Mathematical Knowledge; and Arts and Corporal Culture. When applying COB's research level, the vernacular-literary analytical endpoint under its content dimension shows that this potential outreach focuses on the children's social, psychomotor and cognitive development, as pointed out by Evans & Kosec (2012).

As a whole, the program's content emphasizes citizenship building as the children's right to express ideas, claim wishes, describe their feelings and preferences, pose questions, and think critically. *Asas* and *Asinhas* reinforce the right to positive self-image, and subsequent self-confidence by focusing on the children's potentials, as well as identifying their weaknesses in order to promote dialogue. Health literacy, wellbeing, and environment care are aligned with lessons of reading, writing, and numeracy (Amorim, 2016; Bruns, Evans & Luque, 2011). The four main axes of Verbal Language, Literacy and World Knowledge; Nature, Society and its Relations; Mathematical Knowledge; and Arts and Corporal Culture are broken down into objectives, themes and content.

The activity in which the *Educational Agent* takes the children outside to explore their surroundings is an example of a learning activity that is believed to favor cognitive, physical and psychosocial development in early childhood, while memory, language, cognition, imagination, spatial and motor skills are all being activated. The images below show how knowledge of oneself, of the other, and of the space around them are requested to be explored safely for four and five year olds to develop diverse literacies that are imminent to their living, or even survival. This is an example of how COB's divergent-convergent script in media, their reception-production development, and the oral-literate endpoints overlap among actors and practices (Figure 6).

Figure 6. Image: Orchard created by students. Content Alignment. Retrieved on May 10, 2017. Source: Souza, J. V. F. D. Educação do Campo e da Floresta: Um Olhar Sobre a Formação Docente no Programa Asas da Florestania no Alto Juruá/AC. Master Degree in Education, Universidade Federal do Amazonas, Manaus, 2013. Available online: <http://tede.ufam.edu.br/handle/tede/3174>. Accessed on 25 April 2017.

The Figure 6 shows how *Asinhas* takes into account the reality in which the learners are inserted, as well as the situations to which they are exposed that may require expert content literacy and meaningful knowledge. Among many languages and identities, the state of Acre incorporate an active participation of the family and community members in the children's learning process, each one of them brings in the richness of a complex background (Cenpec, 2011).

In investigating the various layers of a multilingual multicultural setting, the complexity of using the Continua of Biliteracy (Hornberger, 1989; Hornberger & Skilton-Sylvester, 2000) lies on the fact that fluidity is perceived both vertically and horizontally in these continua. Its application is not meant to be punctual but constant and continuous. Therefore, more than one dimension can be integrated at a vertical analysis. The same happens to COB's analytical endpoints: horizontally, this setting can be studied along the nine axial points within each endpoint.

One example of both vertical and horizontal overlaps is that *Asas da Florestania* is also a health-based program (Evans & Kosec, 2012). Handmade cardboards containing its pedagogical proposal are hung on the walls (do Nascimento Araújo, 2011).

4. RESEARCH FINDINGS

Programs such as *Asinhas* are conducive to the inclusion of those that are not included in this homogenization, and can be the beginning of a journey that will bring benefits to peoples who do not have their rights served by their specificities. Changes, refinements and retakes can (and should) be necessary and are part of the process of development and movement of the system in which we are inserted (Heyck, 2010).

Authentic sources of information focused on indigenous, Haitian, and rubber-tapping content is being incorporated into bilingual curricula within the perimeters of the northwestern rain forest programs. In *Asinhas*, a balanced adoption of their own environment, landscape, vegetation, and native literacies has given the curriculum its authenticity. Thus, literacy

has also brought to light the habits and practices of following reading pace with fingers, an absolutely overlooked technique during the alphabetization times, as well as phonemic awareness, early print home exposure, and the use of engaging reading sources (Kleiman, 2008). Altogether, literacy is a fresh overture in the Brazilian settings. Nonetheless, many programs are converging to the intriguing idea of teaching reading, writing, and counting through engaging paths.

As far as forest-based content is concerned, results show that, as enrollment increased in Primary Education, the demand for Secondary Education also represented a chance of sustainability. Thus, the state of Acre organized this feeder into Languages Codes and their Technologies, Nature Sciences and their Technologies, and Human Sciences and their Technologies six modules. In these cases, however, a specialist (or educational agent) teaches at a rotational system: The educator spends three months in a community to cover the content, and then is sent to another community to be replaced by another specialist, who works with another field for the next three months. *Asas da Florestania'*s curriculum has Spanish language instruction; vocational courses on the community's production, and instrumental forestry content and indigenous cultures. The answer the research question to which extent are all identities and languages represented in terms of bilingualism, teaching practices, and resource at this particular riverside indigenous 'forest-based citizenship' program is that the state of Acre addresses diversity at a separate document with curricular guidelines for *Asas da Florestania* and *Asas da FlorestaniaInfantil* projects. It works with methodology and teaching materials that were specifically designed for rural schools. This decentralized movement suits the communities' and families' classes and realities, including regionalized themes aimed at contributing to improving the quality of life in rural communities.

For instance, let us look at one endpoint – development. Rather than only considering if a child's biliteracy is developed more or less in Portuguese (L1) or in Haitian Creoleor an indigenous language (L2) in Acre, orally or in writing mode, or even if it is focused on reception or production, these continua have proven to show gradual relations of power between the importance of L1 and L2, the status of writing and oral modes, or the reception and production in both languages.

Another conclusion COB will bring with their applicability to *Asinhas* is that fluidity is perceived both vertically and horizontally in these continua. The *Educational Agents* themselves are the personification of content and linguistic codes, and that convention varies from region to region, from household to household. Therefore, as these continua are not meant to be punctual but constant and continuous, *Asinhas'* curriculum is tied to the program's ability to strive, to survive. In other words, it is not a matter of determining its location into micro or a macro structure, but how biliteracy surroundings (micro) merge into a larger system (macro) daily and continuously. In sum, the continua points are not mutually excluding as the end of the arrows (see Figure 3), but complementary and progressive. All in all, vertically, biliteracy can be observed as how it flows from development to content to media to context. At the same time, horizontally, biliteracy can be observed along the nine axial points within each endpoint.

5. DISCUSSION AND IMPLICATIONS

Although there is neither Basic Education in four of the 22 municipalities, nor Early Child Education in five other, the government celebrate the enrollment increase in those rural areas: between 2000 and 2009, from 10% to 23% in Primary Education, and from 2% to 10% in Secondary Education. In another ethnography with the Acre Native Indigenous Commission (Comissão Pró-Índio do Acre), the Continua of Biliteracy's authors, Hornberger (1989) and Hornberger & Skilton-Sylvester (2000) state "the course creates a context in which the multiple oral (and written), L1 expressions of the indigenous teachers are voiced and heard" (Hornberger, 2003). *Asinhas* is expected to end underrepresentation by enabling minority-authored students' texts.

In addition to struggling with underrepresentation, the World Bank released a policy document on early child education (ECD) developments in Brazil called *Early Child Education: Making Programs Work for Brazil's Most Important Generation Development* that also presented assessment flaws and recommendations concerning partnership and ECD sustainability. Research has shown lack of crucial features for "the quality-coverage debate": disability, race and rural access, reporting that both lower rural municipalities' revenue and lower scale economies make schooling more expensive in these areas (Fernandes, 2013).

Although Pinheiro (2012) reports that more families are benefiting from *Asinhas*, Fernandes (2013) alerts to the fact that it is unclear whether municipalities ultimately allocate 25% of their revenue to education, as prescribed by law. Last, one implication is related to the population sample and possible troubling to scaling the program up. Besides Spanish, the program could acknowledge Acre indigenous languages literacy and practicum hours. Confectioning homemade books in indigenous languages, as part of the high school pre service program can also be a reasonable option for representing minorities.

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