Capacity Building for Community Development among Educators in Guatemala

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Capacity Building for Community Development among Educators in Guatemala

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I. Introduction

With the growing globalized market, the significance of English as a second language, or third language in some cases, is taking on a larger role in the planning of educational reforms geared to improving students' opportunities and participation in the global economy. In the case of Guatemala, for close to a decade, the ministry of education, national educational reform committees, and diverse groups of non-governmental organizations (e.g. United Nations Educational Scientific and Cultural Organization UNESCO) have engaged in dialogues and negotiations to address the multilingual needs, as well as, to increase the cultural competency of educators given the cultural and linguistic diversity of over 25 different languages spoken across the country [1].

In response to the linguistic and cultural diversity, the intercultural bilingual curriculum was established [1], [2]. The goal of this recently adopted intercultural bilingual curriculum is that by 2025 public schools reach a pertinent cultural education system that is based on these basic principles: (a) language and multilingualism, (b) cultural competency, and (c) an established respect for diversity among its people to in turn reduce racism and discrimination [2]. As Guatemalan policy makers set strategic goals on how to best implement this recently adopted intercultural bilingual curriculum, educators in local settings have also begun to look for ways on how to effectively integrate indigenous native languages (e.g., Mayan, Xinka or Garifuna), Spanish and English as a foreign language within their daily routines and instruction in the primary grades. In response to this curriculum demands, a community of educators made up of teachers, school principals, business people, and local policy makers in the state of Sacatepéquez, Antigua Guatemala, has recently adopted a dual language type of program model incorporating English as a second or third language. Their goal is to develop the capacity of their local communities by the use of effective multilingual and multicultural pedagogical practices. At the same time, these new linguistic competencies, such as learning English, will serve to maximize the community's capacities for the future. Guatemalan policy makers, business people and educators recognize that continuous support for the development of a multilingual nation is essential for the economy of their country as well as to the personal well-being of their citizens [1], [2].

Communities across the world seek to develop programs based on multilingual policies that are responsive to the needs of their children within the socio-historical context of their past history, their present conditions and their future goals in a global society [3]. Under this premise, in May 2007, our team traveled to Antigua Guatemala to introduce phase one of a multi-year capacity building teacher professional development series. At the time of our arrival, this community of educators was already in place providing ESL courses to teachers from public and private schools, on Fridays and Saturdays bi-weekly, in an effort to build their capacity in English. The first professional development series focused on basic theoretical principles and effective instructional practices of dual language programs because Guatemalan educators desired to gain new knowledge and skills on best instructional practices in the field of dual language education. In the United States and Canada, there is mounting evidence of the success of the dual language programs, particularly when there is a school-wide commitment to ensuring its consistent implementation [4]-[6]. Therefore, the primary concerns and challenges for U.S educators and educators in Guatemala were on how they were to utilize this research-based theoretical

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framework and program philosophies to establish an even stronger dual language instructional program that would best fit within their context.

In general, research shows that successful dual language programs include socio-cultural, linguistic and pedagogical features that are intertwined in the delivery and implementation of the programmatic efforts [4], [7]. Exactly how such academic program is to be implemented and how the languages are to be distributed depends on the instructional goals and factors associated with the school environment and local cultural-historical context [4], [7], [8]. In the case of this Latin American country several key socio- and contextual-factors within its communities extend beyond the systemic processes most programs in the United States adhere to during development and implementation of bilingual and dual language models. This Guatemalan community of educators has unique challenges such as its linguistic and cultural diversity. This means that careful consideration should be taken on the program design in relation to the two languages to be emphasized under a dual language model. For example, in the context of indigenous communities, it should not be assumed that Spanish represents the first language (L1). Furthermore, there are other common challenges faced such as low SES, high levels of illiteracy among parents and minimal professional development among the teaching community. This paper begins to address some of those issues as the first step in a process of implementing an intercultural bilingual curriculum through a research-based framework seeking to foster effective teaching methods in socio-cultural context.

In this paper we examine phase 1 of the multi-year capacity building plan. The study addresses the results from a survey research carried out with a group of 39 teachers. These educators are currently participating in professional development activities focused on establishing a systemic competency framework for best instructional practices in a Guatemalan dual language program. Key features addressed in the survey include (a) teacher professional development, (b) instructional strategies, (c) resources needed, and (d) parent/community involvement. In phase 1 of this collaborative effort, we examine the views and beliefs of the teachers at this early stage and provide suggestions for phase 2 of the project's short term and long-term capacity building goals. The survey findings also provide a research-based decision making approach connected to their contextual efforts towards the development of a sustainable capacity building framework.

II. Research Framework

a) Building Capacity in Community Context

The development of a community is intertwined with the development of each of its members within any given ecological setting. Children spend most of their formative years in the school setting [9]. This aspect points to the importance of building educators' capacity which in turn helps to build the capacity of students and future local communities of practice [10]. Building a person's capacity is a reciprocal, fluid and interactive process that is connected to a community's development. The capacity building of educators impacts their intra-psychological (or individual beliefs, values, skills and self-efficacy) and their inter-psychological processes such as interactions with students, delivery of instruction and communication with parents, to name a few, as well as the social plane which includes points of leverage or pipelines for professional and community growth [11]-[13].

Research also reiterates that programmatic efforts are effective when they seek to build the capacity of individuals in order for them to play a significant role in their communities [14]. This connectedness allows for programmatic activities to be meaningful and contextual for participants as they seek to develop capacities for personal and community improvement. For example, research shows that adults can play a potentially important role in the positive socialization of children and youth. However, many adults do not engage positively with young people on an intentional, frequent, and deep basis [14]. These research findings illustrate the important on building the capacity of educators who spend a great deal of time with students in the school setting as well as programmatic efforts needed on how parents can be effectively involved in the education of their children.

Capacity building in community context requires an understanding that learning environments exist in every community setting. However, the question is if the learning environment is good for optimal achievement of its community members' potential or if it lacks due to minimal resources and due to a socio-cultural mismatch or any other factors in the ecological setting. This is critical because research also indicates that how individuals perceive and react to their environment is also important in terms of influencing their outcomes [15]. For example, participants' perceptions of their environment (e.g., community, neighborhood, street or housing complex) are essential for understanding the opportunities for learning that are available to each person and how those opportunities (or lack of them) are viewed in socio-cultural context [16]. Learning environment research suggests that a better understanding for the improvement of programmatic interventions can emerge by examining the ways that programmatic practices are meaningfully connected to community needs. This is because participants ultimately respond to what they perceive to be important to them [15], [17], [18].

The means for achieving the above programmatic goals involve socio-cultural, linguistic and

pedagogical strategies to build Guatemalan educators' capacities. The evidence on the importance of such research-based strategies is examined next in relation to its useful components for capacity building as well as some notes of caution on contextual aspects to consider in the process of developing and implementing programmatic efforts in international settings.

b) Socio-Cultural Factors for Capacity Building

Socio-cultural theory is founded on the idea that learning is driven by social and cultural contexts [9], [10]. Vygotsky's [13] perspective contends that these opportunities to create social-context relationships can be mediated through the use of various cultural tools, and a major role of schools is to provide individuals with opportunities to engage in culturally-meaningful productive activities with the collaborative support of a more competent peer or adult expert other. Moreover, socio-cultural factors also serve toward successful programmatic efforts by connecting instruction to children's lives as well as making instruction meaningful by the inclusion of social, ecological and individual experiences in multicultural settings. This is important as we consider the wide range of social contexts and circumstances beyond the classroom that influence academic accomplishment [19]-[21].

Furthermore, socio-cultural perspective encourages the use of a variety of direct and indirect approaches to draw on students' familial and local contexts of experience. At this level, programmatic efforts seek to foster instructional practices that include culturally responsive teaching by incorporating the everyday concerns of students, such as important family and community issues, into the curriculum. Culturally responsive teaching helps students prepare themselves for meaningful social roles in their community and in the larger society by emphasizing and connecting both social and academic domains including the learning of a foreign language. For example, a lesson or unit on health may include the role of practices such as the 'curandero' or healer in order to connect the known (what the child knows), with the unknown (subject matter, foreign language and instructional goals). Community activities, social practices and environmental materials serve to connect instruction and to make classroom activities meaningful for the children [9], [22]. By working from and validating students' existing knowledge base, this teaching practice improves the acquisition and retention of new knowledge and develops students' self-confidence and self-esteem. For students whose experiences and everyday living may not be parallel to those experiences found in the school environment, culturally responsive teaching also makes new subject matter, foreign language learning and everyday lessons relevant and significant. It increases the transfer of school-taught knowledge to real-life situations and vice versa. Culturally responsive teaching also exposes participants to knowledge about other individuals or cultural groups [23].

c) Linguistic Factors for Capacity Building

There are several linguistic factors relevant in the process of designing educational programs for bilingual children. For example, a basic linguistic principle, generally overlooked, is that abstract vocabulary is typically learned by the use of linguistic context, i.e. by the use of language. While abstract vocabulary is crucial to cognitive development and to success in school, it is much harder to learn than concrete vocabulary and it is typically acquired by explanation or by hearing the vocabulary used repeatedly; examples are words such as "democracy," "joy", and "persistence", words that children are introduced to in early elementary grades. The opportunity to master abstract vocabulary must be provided in students' first language (L1) until a high level of proficiency is attained in the second language (L2). Otherwise, the development of abstract terms and the mastery of the concepts this vocabulary refers to will be delayed; in some instances it may never take place [8], [24], [25]. Otherwise, children begin to lag behind in their competencies, which in turn, have a cumulative effect, creating an academic gap, across grade levels. This is a key component to consider in the design of a dual language program.

Research also indicates that language acquisition involves domain-general as well as domain-specific processes [26]. For example, infants, regardless of the language and culture of the society into which they are born, begin language acquisition with the babbling stage which takes place around seven months of age [26]. These are fundamental innate processes of human developmental learning. Research shows that babbling is controlled by the left hemisphere of the brain; it shows that even at this early age before recognizable language has begun, the brain areas that will support language are already active and behaving in language specific ways [27]. At the same time, there are also learning processes that are domain specific and they require the consideration of cultural values, norms, and beliefs related to cognition. For example, between nine and twelve months of age babies begin to interact with others in a new and more complex way referred to as social referencing or secondary intersubjectivity [27]. This involves the baby's tendency to look at the caregiver for some indication of how he/she should feel and act when he/she encounters something unfamiliar [26], [27]. These processes of intersubjectivity are also mediated by cultural activities, community values, beliefs, and practices leading to socialization [28].

The above research illustrates that the cultural and linguistic diversity found among students can certainly serve to develop a classroom environment that facilitates learning a second or third language. Also, it

certainly serves to make a strong case for the need to develop innovative and flexible bilingual programs. Such programs need to take into account the linguistic needs of the students as well as the linguistic needs of the educators (e.g., their need for professional development). Nonetheless, this flexibility of program type has its pros and cons. Its flexibility allows for program designs to be interwoven within current efforts and for contextual components to be included. However, the same flexibility may lead to difficulties when trying to evaluate program outcomes across settings. Therefore, evaluating program effectiveness will require viewing programmatic procedures through a multi-facet, multi-contextual, multi-lingual and multi-cultural lens. This is something we will continue to explore in this multi-year capacity building collaborative effort.

d) Pedagogical Factors for Capacity Building

In settings outside the classroom even the youngest children, as well as mature adult learners, develop their competencies in the context of joint productive activity [9], [22], [28], [29], [30]. Moll [29] asserts that it is necessary to understand these complex connections between social relationships and cultural influences of human beings, in both, the school and community setting, for the effective literacy development of children. Within a household setting, these complex social networks are evident in the daily exchanges among members of a household and its community [29]. Whether it is a mother and child cooking together, or experts and novices producing together, shared ways of understanding the world are created through the development of language systems and word meanings that are used during joint productive activities [9], [28], [30].

Language, thinking, values, and culture have deep interconnections; dialogue, particularly during joint productive activity supports students' academic achievement and affective development [13], [31]-[33]. Students need authentic and purposeful opportunities to speak and write, to practice language use, and to receive the natural feedback of conversation from their teacher and peers. For example, oral and written language development can be fostered by restating, modeling, offering alternative phrasing, and questioning [9], [34].

Pedagogical training is a key factor for capacity building because it provides teachers with the skills for engaging students in meaningful ways. Research shows that learners construct meaning from previous knowledge and experiences [9], [10]. Furthermore, research shows that students' previous experiences significantly impact student connections to new learning such as a foreign language. Making use of live experiences involves the processes of combining both formal and informal literacy strategies. An effective bilingual program would make use of students' previous

knowledge and their families' funds of knowledge because literacy unavoidably begins within the contexts and functions from households and other communities of practice [10]. The relationships and transactions in such community of learners are supported by research that serves to underscore the importance of understanding the multiple connections embedded within school, community and home environment.

III.   RESEARCH METHOD

a) Research Questions

1) What do private and public school teachers during phase 1 of the project in Guatemala perceive to be their largest challenges in implementing a dual language program?

2) Are there differences in teachers' perceptions based on any discernible factors (e.g., private vs. public, participants' level of education)?

3) What recommendations for the next phase in the program's capacity building and curriculum development grow out of the teachers' input from all activities thus far?

b) Participants

The results presented in this study are based on a sample of 39 teachers who agreed voluntarily to participate in the pre- and post- survey study during the dual language training conducted in Antigua Guatemala in May 2007. These teachers are part of a pilot study that includes ten schools. The survey study seeks to examine the needs for future implementation of a dual language program in Guatemala. Teachers are receiving English classes on Saturdays as well as specific training on dual language models. In this study, all demographic variables were analyzed using this entire population (N=39). However, for the pre and post findings addressing the needs for the successful implementation of the dual language program, the number of survey participants fluctuated, therefore a sub-sample of 29 participants was used in some of the analysis.

Descriptive analysis of the data revealed important characteristics among participants. Overall, 17 % of the participants were males and 83% were females. The age of participants ranged from 19 to 64 years old (M = 36; SD = 9.62). Teachers were also asked about their level of education. Overall, 33% have achieved a level of education comparable to trade school or are in the process of basic certification. 4% indicated having achieved a degree of education referred to as "maestría". This is a teaching degree that is a step below a bachelor's degree in the context of Guatemalan education. 26% of the teachers reported having achieved a bachelor's degree and 3% of the survey participants marked "other" which included a wide range of educational experiences such as high school graduate, secretarial school, or city-college. Descriptive statistics also show that teachers participating in the

dual language introductory training come from socio economically diverse school settings. 57% of the teachers work in public schools and 43% work in private schools. Overall, teachers participating in the dual language introductory training, work in schools across neighborhoods in Sacatepéquez and Guatemala City.

c) *Instrument*

At the beginning of the dual language training, participants were asked to fill out a Need Assessment survey. The survey contained a total of 32 items. The items addressed gender, type of school and level of education of participants as well as rating scales, close and open ended items. At the end of the training a second survey was applied in order to examine future needs for training. This survey contained 11 items focused on teachers' perceptions of needed professional development for future training sessions. This last survey focused on gathering mostly qualitative data.

Both surveys contained structured questions and open-ended responses such as "Do you believe that what children are going to learn in the dual language program will serve them in the future? (¿Cree usted que lo que los niños van a aprender dentro del programa de lenguaje dual les servirá en el futuro?)." In this case after answering "yes" or "no" they were also asked to give three areas of importance in which they believe the program would serve Guatemalan children. Items also included open questions for participants to provide a thicker description of their views and opinions on what they consider to be the needs for future implementation of a dual language program models in Guatemala. For example, "In your view as an educator, what are the three most important components for the success of a dual language program in the context of your school? (En su experiencia como educador, ¿Cuales serian los tres componentes más importantes para el éxito del programa de lenguaje dual en el contexto de su escuela?). One goal of the surveys was to gather information on key components that are needed for the long-term goal to successfully develop and implement an intercultural bilingual curriculum. Another goal was to inform the decision-making process on instructional components for future trainings in Guatemala. This survey study represents the first stage of the research in an effort to begin to understand the capacity building needs among educators and well as the processes for achieving a contextual socio-cultural bilingual program in an international setting.

d) *Procedure*

The development of both surveys involved a review of the literature in order to address issue of validity. To accomplish this task, the literature review included not only theory-based and research-based articles but also Internet searches on current dual language program models addressing linguistic, socio-cultural and pedagogical areas. Examples of dual language surveys were examined, and based on this literature review, the survey items were developed. The second step involved the development of each survey, in Spanish. We used a back-to-back translation procedure to ensure its reliability and validity.

Closed survey items were analyzed using quantitative statistical procedures in order to examine group differences. The responses to the open-ended questions given by teachers were coded. Two independent coders were used to code all responses and the reliability of the codes was assessed using intra-class correlation coefficient analysis in order to determine the degree of agreement between coders on the pattern of responses by teachers. The 13 open-ended items yield an average reliability value of .95 with a range of .83 to 1.00.

IV. Survey Results

The Statistical Program for the Social Sciences (SPSS) was used to examine differences on attitudes, opinions, and perceptions about the needs for the development and implementation of a dual language program in Guatemala. The dependent variables were a set of 32 structure open and close questions. These dependent variables were subsequently analyzed with a set of independent variables including Level of Education, Gender and Type of School (whether participants were teaching in public or private school). Participants were also asked to indicate what would be the three most important components for the success of a dual language (DL) program both at the school and the national levels. Data fell into three main categories of (1) professional development, (2) material resources, and (3) parental and community involvement. In the following sections findings are examined within these three main areas.

Table 1 : ANOVA Results on Teachers' Perceived Needs for Implementation and Development of Dual Language (DL) Program by School Classification

	Public School (n=16)		Private School (n=12)		
Teachers' Perceived Needs for DL Program	M	SD	M	SD	F
Implementation					
English Skills	3.75	2.77	9.08	1.08	38.65***
Need Prof. Development	1.45	.688	2.70	1.49	6.218*
Basic Comm. Needs	3.13	2.06	4.91	2.39	4.299*

Teachers' Perceived Capacities for Teaching in DL Program					
Reading/Writing in First Language	3.33	.816	3.42	.996	.813
Reading/Writing in Second Language	2.08	.900	3.33	.888	11.730**
Oral Skills in First Language	3.33	.900	3.50	.798	.253
Oral Skills in Second Language	2.23	1.09	3.42	.515	11.718**
Teaching Math in First Language	3.20	1.01	3.00	.894	.272
Teaching Math in Second Language	1.67	.778	2.73	.905	9.130**
Teaching Science in First Language	3.14	1.03	3.27	1.01	.100
Teaching Science in Second Language	1.58	.889	3.09	.944	19.81***
Knowledge of theory and practice of DL Program	2.07	.730	3.00	1.04	7.06*

* $p < .05$ ** $p < .01$ *** $p < .001$

a) Teacher Professional Development: Learning new pedagogy alongside a new language

Public and private school teachers significantly differ in their Level of Education, $\chi 2 (3, n= 29) = 8.07$, $p <.05$.   Private school teachers reported having achieved a higher level of education than their public school peers.   Public school teachers also differ significantly on how they rated themselves in their English skills, $F (1, 26) 39.65$, $p< .0001$, findings indicate a greater need for public school teachers to learn English (see Table 1). This is also indicative that in order for program development and implementation to be successful, the critical needs of public and private school teachers need to be met.   In relation to their perceptions of preparedness to implement the DL model, they expressed the need for professional development on the theory and practice within the dual language program model $F (1, 24) = 7.06$, $p< .01$. Teachers felt that the May training gave them new skills and knowledge on the development and implementation of a dual language program $F (1, 23) = 13.01$, $p< .001$, but they cited the need for ongoing professional development. Those needs are to be addressed within the socio-cultural context of the school environment and communities where they teach. In relation to program implementation, this finding indicates that 90/10 dual language model (where classroom teaching would need to be 90 percent in Spanish and 10 percent in English) may be most appropriate in the context of Guatemala as teachers in the public schools will require a great deal of training and cannot assume the role required under a 50/50 model.

Because the majority of the teachers expressed a need in their post-training surveys, in May 2007, to see actual examples of the dual language immersion program model in practice, the November 2007 training focused on pedagogical aspects.   In May, the first professional development phase had included reviewing the research on how to develop and build a strong bi - literacy foundation based on children's development of early literacy skills in both Spanish and English (e.g., developing oral language, developing phonemic and graphophonemic awareness, developing concepts of print, and utilizing storybook reading). At the beginning less emphasis was initially placed on the pedagogical aspects of teaching these different skills. And more emphasis was placed in identifying the overall needs in social context. However, the teachers indicated that they understood the concepts from their teaching in Spanish but were less certain about how to transfer that pedagogy to a language they were themselves still learning.

The November 2007 training, therefore, was organized around the pedagogical aspects of implementation: concepts of classroom organization and management, the importance of language routines and predictability of classroom activities, the use of visuals for concept and vocabulary development, the importance of separating the two languages, the use of teacher gestures and body language for supporting comprehension of English, and the ability to work with a theme-based curriculum.   Teachers expressed deep satisfaction with the more concrete approach, as they were able to envision how, even with low levels of English themselves, they could implement 30 minutes a day (90/10 model) of English at the kindergarten level:

"Me han gustado las nuevas ideas para enseñar vocabulario a los niños, como enseñar a pronunciar correctamente las palabras, y como poder utilizar la música de una canción utilizada con otras palabras." *(I like the new ideas on how to teach vocabulary to the children such as how to pronounce a word correctly and how to use music from a song so we can teach new words through music)*

"Me ha gustado la metodología sencilla que necesitamos. Pensé que era más complicado pero lo han simplificado, ¡Gracias!" *(I like the simple methodology that we need. I thought it was more complicated but you have made it simple. Thanks!)*

"Nos has preparado para poder llevar el inglés a cada una de nuestras escuelas. Creo que el próximo año los pequeños que estén a mi cargo estarán contentos de aprender otro idioma." *(It has prepared us to take English into our classrooms. I think that the students, who will be in my classroom next year, will be happy to learn another language).*

To summarize, for teachers to develop their own ability to support a dual language program, they will need to be provided with a great deal of professional development, not only in research-based educational

models, but also in the English language itself. Developing such dual competencies will take personal and professional time and commitment as well as considerable financial resources to provide for such training and mentorship at the local level. The teachers in this cohort are highly motivated and see this as an opportunity for further professional accomplishments as well as for a better education for the children in their classrooms.

b) *Material resources: Building on existing resources and developing long-term goals*

The social, cultural, and economic context in which this model of dual language is developing is quite different from the contexts in which similar models develop in countries with greater resources such as the United States and Canada. According to the opinions expressed by teachers in this training, one of the major obstacles relates to the limited access to greater economic resources, of which professional development training (as discussed above) is just one part. In addition, teachers also pointed out the need for more books, curriculum and other materials for the classroom, and for mentorship as they apply the DL model in their classrooms:

"Necesito más capacitaciones en el futuro, más tiempo para la capacitaciones en inglés, y más información e instrucciones." *(I need more training in the future. More time for English training and more information and instruction).*

"Necesito obtener un juego de material que trae para poder optimizar el trabajo de la escuela piloto: canciones, rimas, poemas, cuentos, juegos." *(I need to obtain a set of materials so I can optimize the work at the pilot school. I need songs, rhythms, poems and games).*

"Necesitamos libros de cuentos, material adecuado para niños pequeños, y libros de poemas y canciones." *(I need storybooks, material that are adequate for children and books with poems and songs).*

During both DL trainings we began the process of helping teachers identify resources that already exist and that can be utilized in the classroom such as the funds of knowledge, linguistic and diverse cultural richness in Guatemala as well as environmental materials available in the community settings. Curricular ideas were built, for example, around themes that could utilize concepts and vocabulary in local settings. Teachers put together lesson plans that included the use of community resources such as the marketplace so children can learn about local and known fruits and vegetables in the English language. Teachers collected pictures from a variety of sources to use in their classrooms. They were shown how to make simple puppets with movable tongues out of socks to use in phonics lessons. They learned to use tunes from Spanish songs and apply English words to build on cultural knowledge in the classroom. This process of building on existing resources and using them in innovative ways engaged the teachers and some of them began to share during the training some of the contextual units they had developed using available resources. This interweaving of economic realities into the training and the discussions with teachers assisted them in understanding that SES can be a key factor in shaping how they implement aspects of the bilingual program, but not in whether or not implementation is feasible. Certainly, an offering of workshops and ongoing mentoring, for example, could be financed by governmental, business, or non-profit organizations. Implementation of the DL model would, of course, be hindered if such funding becomes sporadic. Despite the obvious need for basic material resources, the current support of this first cohort of teachers seems to be acting effectively as a model for the future. This support system comes from a non- profit organization named "Business People for Education". They represent business folks and educators from Guatemala; they are interested in the capacity building of their local communities. In this multi-year capacity building program, the key will be to build on the existing resource so that currently trained teachers can in turn act as instructors and conduct teacher training for their own colleagues. In other words, we seek to develop a community of learners.

c) *Parental and community involvement: Disparities between public and private schools*

Table 1 also shows that teacher perceptions differ as a function of Type of School (e.g., working in public or private school). Overall, the results yielded a significant main effect by Type of School, $F (1, 19) 6.22$, $p< .05$. Teachers in the public school perceived that the inclusion and respect of culture and native language into the DL program is an important component for the teaching and learning of indigenous children. Their concerns seem to be focused on how to integrate the culture and home environment of the children into the dual language program model. On the other hand, the prevalent concern for teachers in private schools was that indigenous children cannot speak Spanish therefore learning English will have its challenges. Both points are equally important and should be taken into consideration for further program development.

The teachers overwhelmingly cited parental involvement in their child's education as paramount, but the limited amount of academic resources available to families was considered a problem that would be difficult to resolve and a possible impediment to the successful implementation of a dual language program. For example, geographical areas in the context of Guatemala means limited resources due to low SES such as in the cases of remote villages in the high lands where resources for academic activities (in this case materials) at home may be limited. However, teachers did brainstorm on possible ways for parents to be involved. For the public school teachers, parent

involvement in the process of DL program implementation, was viewed as necessary primarily to motivate the children in very general terms:

"Motivar a sus hijos para mayor interés para el aprendizaje del nuevo idioma." *(Parents need to motive their children towards the learning of a new language).*

"Son apoyo indispensable para motivar y reforzar en la medida de sus posibilidades." *(Parents are an indispensable support for motivating and reinforcing given their possibilities).*

"La familia es muy importante, ya que ellos son la primera escuela." *(Family is very important since they are the first school).*

The above comments reflect typical expectations that public school teachers often voice regarding home support. But, when they were pressed to cite specific ways in which parents could offer such support, less emphasis was placed on actual collaboration with teachers or on the provision of in-home reinforcement of school concepts. Instead, their emphasis was placed on describing rural families as having limited education and even fewer material resources:

"Los recursos económicos son muy escasos. El tiempo que comparten los padres con los hijos por situaciones de trabajo es también muy poco. Los papas tienen los recursos mínimos para apoyar a sus hijos." *(The financial resources are minimal. The time shared between parents and children is also minimal due to their work situation. Parents have minimal resources to support their children).*

"Ninguna [recursos] ya que hay muchos padres que ni siquiera pueden leer y escribir en español y saber que sus hijos lo van a leer en inglés, lo vean complicado." *(There are no resources since there are parents who can't even read and write in Spanish. To know that their children are going to read in English may be seen as complicated by them).*

Their comments point to two areas of need. One is the need for the further professional development of teachers in order to reflect deeper on ways in which parents' funds of knowledge can be connected to classroom instruction. The other has to do with workshops for parents in order to assist in building their capacity to become engaged in the academic education of their children. In this context, capacity building begins to take the form of multiple programs in order to assist in the successful development of the whole child in socio-cultural context. This means that children navigate across multiple worlds and the interconnection of those multiple worlds may serve to provide a more effective education.

For private school teachers, in contrast, parental involvement was cited as more typical in their schools, as many of the families came from the middle class with more access to books, higher educational levels, and more time for involvement:

"Ellos también tienen un papel importante ya que son ellos en los cuales los docentes nos vamos a apoyar." *(Parents have an important role since it is them in whom we (as educators) are going to seek support).*

"El 95% de los alumnos [en esta escuela privada] tienen todos recursos a su alcance." *(95% of the students (in this private school) have all of the resources to their reach).*

"Algunas familias cuentan con suficientes recursos (materiales y tecnología) para apoyar a sus hijos." *(Some families have sufficient resources (materials and technology) to support their children).*

Overall, private school teachers were in strong agreement that parents need to be involved in the dual language program in order for the program to be successful in their respective community settings. They were also in strong consensus on what are the resources that the families have in order to support the education of their children at home.

The provision of material resources, however, is not the only factor in supporting a school program, as there are other ways in which parents can be made participants in their children's educational development. As previously stated, there are funds of knowledge that teachers can use as a starting point for parental involvement. Teachers were also asked to give their opinion on what schools can do to involve parents in the education of their children. They expressed the need to have (a) workshops/meetings for parents, (b) activities within the DL program for parents, and (c) training/explaining the program to parents. Therefore, parental and community engagement and ownership in the process seem to be components that teachers perceive vital for the program' future success.

V. Phase 2: Building Capacity in Community Context through Cultural and Linguistic Responsive Instructional Teams

Our survey research has unfolded that Guatemalan public school teachers need further professional development in comparison to private school teachers. They also need to build their capacity in the area of material resources for the classroom such as curriculum and basic classroom materials. There is also a greater need for public school teacher to learn English in order to participate in the dual language program. In the case of parental involvement, both public and private school teachers agreed that greater parental involvement is needed and that parents should also receive training or workshops regarding the dual language program.

In response to these issues, phase 2 of the project will seek to involve teachers, parents/other community members and school principals in reciprocal capacity building activities in an effort to develop:

Cultural and Linguistic Responsive Instructional Teams at each school. The goal is to provide capacity building to teachers, parents/other community members and school principals in an effort to develop a cohesive approach on how all part can play a role in the educational development of Guatemalan children. Our first attempt will take place in the summer of 2012. We plan to carry out a Dual Language Institute in Antigua Guatemala. The goal is to bring educator (e.g., bilingual teachers, content area teachers, ESL teachers, curriculum developers and school administrators) in an effort to promote a community of learners. Since conducting this survey study, we have traveled to Guatemala twice to conduct professional development activities for teachers. During the last visit, in August of 2010, this new vision of "educating the whole child" was proposed and has been accepted by the teachers, school principals and business partners in the area. For example, the need across school principals is also great. A school principal is often chosen by his or her leadership skills as a teacher. However, he/she has no background on educational leadership. This is something we plan to address during the Dual Language Institute in Antigua Guatemala. Our goal is to develop a culturally meaningful program that seeks to foster children's identity in socio-cultural and linguistic context. We believe these interconnected efforts will yield positive results.

VI. Conclusion

In this paper we have sought to explain some to the challenges and benefits of implementing a socio-cultural bilingual dual language program in an international setting. Our goal has been to outline what research shows to be some key components of instruction and program development that need to be taken into account in the socio-cultural context and linguistic diversity of communities across Guatemala. The needs expressed by the teachers also serve to corroborate the interconnectedness between teacher professional development, resources needed in the classroom and parent/community involvement. It provides possible avenues for future implementation of DL models for nation- wide educational reform efforts in Guatemala. On the other hand, it also points out that the task ahead it not an easy one and that development and implementation of a dual language program model needs to be done in steps that take into account the multilingual, multicultural, and multi-contexts of these communities in Guatemala.

Our research also has some limitations. For example, the direct effects of these components on children's academic, cultural and linguistic competency are longitudinal research questions under exploration that are not addressed in this paper. Also, the findings should be interpreted with caution due to the small sample size of survey participants. On the other hand,

we want to point out that the goal of the study is not to address program impact but to assess needs for program development and implementation. We believe that this modest study points out some critical features that are needed for the successful development and implementation of a bilingual program in socio-cultural context.

An equally important consideration, in the Guatemalan context, is the involvement of families and community. Tensions can arise in schools and communities in which English language instruction has not played an important role in the past. The introduction of English can carry with it a number of difficulties, including fear of inadequate training, apprehensions about insufficient staffing, resentment at restructuring the curriculum, and resistance to the emphasis on North American culture that often accompanies English language instruction. As a result, attention must be given to careful planning and monitoring community participation.

Overall, research suggests that the road to greater success in program development includes programs that include all players within the particular ecological setting [12], [35]-[38]. Successful efforts in Guatemala will need to include greater input and participation by teachers, students, parents, other community members (business) and policy makers. These preliminary findings also suggests that socio-economic differences, levels of teacher preparation, linguistic and cultural issues are among the key components that need to be carefully examined for the development of a successful intercultural bilingual curriculum and instruction program. Consideration of all these issues will increase the likelihood of program sustainability and fidelity of implementation and better yet, a successful outcome for children and communities.

Acknowledgement

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