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Content

DEVELOPMENTS in the Field of Extended Education

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Editors' Preface

The International Journal for Research on Extended Education started with national reports and research summaries in the first two issues. The focus of this third issue is on a specific initiative in the field of extended education, the University-Community Links (UC Links) network. This network engages university students with young people in hands-on learning activities as parts of after-school programes. We are very glad to have been able to work with Charles Underwood as guest editor. Charles Underwood is the Executive Director of UC Links, which is located in the Graduate School of Education at the University of California, Berkeley.

In their introduction to the main topic, Charles Underwood and Leann Parker, Associate Director of UC Links, describe the background and diverse activity of the network, which extends beyond California with collaborative partners throughout the world. Apart from the main topic this issue also includes several free articles on different issues and subjects in the field of extended education.

The IJREE is still a very young journal. The editors are trying to improve the journal and its service step by step. In doing so in this issue we are introducing a new section to the journal called "Developments in the Field of Extended Education". In this section we publish (short) papers that are of interest for researchers in the broad field of extended education. This includes papers dealing with new research methods, short research reports or developments in research networking. With this section we are aiming at improving research networking in the field of extended education.

Sang Hoon Bae (South Korea) opens this new section with a critical summary of the last International Conference of the Network of Extracurricular and Out-Of-School Time Educational Research (NEO ER) in Seoul, 2014.

We are very glad to have had many researchers submit their papers to the IJREE. Because of the high number of free contributions, we will publish only free contributions in the next issue 1/2015.

Though there is a high number of submissions we would like to encourage researchers of all areas within the broad field of extended education to submit papers to the IJREE. We are looking forward to your papers.

We hope you enjoy this special issue of the IJREE.

Sabine Maschke, Ludwig Stecher and Joanna Bennett

University-Community Links: Collaborative Engagement in Extended Learning

Charles Underwood & Leann Parker

Introduction to the Main Topic

While it has become accepted that quality after-school programs for young people promote academic achievement and social development (Eccles/Gootman 2013; Pierce/Augur/Vandell 2013), it remains a major challenge to provide such programming in ways that both meet accepted standards of high quality and serve the students who need it most. For many programs providing underserved students with extended learning activities, collaboration between institutions is important. In many cases, because the school problems of many young people are symptomatic of much broader societal problems they face, no single institution can alone provide all the physical, educational, and personnel resources necessary to establish and maintain a viable extended education program that adequately addresses the range of cognitive and social needs of the young people it serves (Underwood/Frye, 1997). This special issue of IJREE presents several articles about University-Community Links (UC Links), an international network of extended education programs in which universities and local community organizations collaborate to provide extended learning opportunities for underserved young people in their respective localities.

Members of this network, which encompasses Fifth Dimension (5thD) and La Clase Mágica (LCM) program sites (see below) throughout the United States and other nations, together with the statewide UC Links network of sites in California, draw on similar theoretical and practical issues and collaborate in both programmatic and research efforts. Thus, this 5thD/LCM/UC Links collaboration represents not only an international network of locally based programs but also a dispersed community of university and community partners who interact digitally to share ideas about implementing innovations and responding to challenges. Much of the work of providing engaging educational activities for underserved youth takes place in local schools or communities, but the interaction of key UC Links partners across local sites is an important element in the creation of a sustainable international community of learners.

Common Elements

Since its beginnings, the goal of the international 5thD/LCM/UC Links network has been to increase the educational experiences of children in historically underserved communities while at the same time enriching the educational experiences of undergraduates engaged in discipline-based university courses. To accomplish this dual mission, participating faculty teach courses that place their students in practicum field training experiences in after-school programs at local schools or community-based organizations. There, the university students guide children through innovative learning activities designed to promote literacy and digital skills, as well as collaborative behavior and college-going identities. The university students receive credit for academic courses that integrate theory and practice, while the P-12 (preschool through 12th grade) students take part in innovative, fun activities that steer them toward academic pursuits.

The name UC Links refers to certain basic elements that all the programs in the network share. Primary among these is the collaboration between institutions of higher learning (colleges or universities) and local community organizations (schools, youth clubs, churches, etc.). The name also refers to the coordinated network of programs and to the connections and interactions that each program creates through collaborative learning activities between university students and local P-12 students. This multiple meaning of "University-Community Links" resonates among all the programs in the international network and connects them theoretically, pragmatically, and pedagogically as a community of practice.

In practice, each UC Links site constructs a local activity system in which both community and university collaborators feel intensely invested. Cole (1996) has examined after-school youth programs closely as activity systems in which individual and small-group learning takes place as a process of distributed cognition. In this context, he has investigated the development of activities using mediational tools – e.g., computer games, new digital media, and other hands-on materials – as a cultural system that frames the collaborative engagement of young people and sets up multiple opportunities for "the zone of proximal development," in which youth learn together to accomplish tasks that they could not have completed individually (Vygotsky 1978). This programmatic framework for linking undergraduate and P-12 participants in constellations of informal collaborative tasks is based on a cultural historical view of human cognitive experience, approaching individual and small-group learning in the context of activity systems that transcend and extend the limits of formal education, become culturally mediated and institutionally sustained over time (Cole 1996; Cole/The Distributed Literacy Consortium 2006; Vásques 2003).

As the international network has developed over time, it has also drawn on related socio-cultural theoretical approaches. The specific definition of learning as changing participation in the sociocultural activities of everyday life (Lave 1996) is crucial to this approach to informal learning, in that it impels us to look for the tangible evidence of learning in changing practice in the context of real-world activities, such that we look for learning not simply within the minds of individual students in classrooms and schools, but also in the interactions between teachers and students and among students themselves, in everyday situations both in and out of school. This approach to learning as socially and culturally situated in practice, complemented by Rogoff's (1995) focus on learning as participatory appropriation

– encompassing how individual understanding of and responsibility for activities is transformed through their participation over time – enables us to situate informal learning in complementary relation to formal learning practices. While the latter generally represent an externally mandated system of activity which creates an encapsulated environment, a closed system that functions according to its own internal logic, informal learning represents a negotiated system, worked out among participants in the course of ongoing socio-cultural activity. Viewed in this way, learning both in and out of school clearly involves mixtures of formal and informal learning strategies, although one or the other may be emphasized in different settings.

From the outset, the Fifth Dimension and La Clase Mágica programs drew on the local knowledge of the community and school partners, in order to adapt the program to the special interests and needs of local children and their families. Parents and other members of the community played a key role as equal partners in the collaboration, taking part in defining themes and activities that were culturally and linguistically appropriate for their children. University faculty, staff, and students brought to the equation extensive multi-disciplinary knowledge and experience in building meaningful learning activities and in using technology and other educational resources to serve those themes and activities. In this way, for each of the programs in the network, the practicum course served to establish relationships of participatory appropriation between university and community partners, between university students and faculty, between university and P-12 students, and among the P-12 youth themselves. Linking community service to coursework in this way has allowed faculty to integrate their community-service interests with their teaching responsibilities. It also enabled them to pursue their research interests, thus making it possible for them to be institutionally rewarded for their participation – that is, making it possible for their participation to complement their research programs, rather than taking away from the research work that represents the prime activity for which their institution rewards them. It has also enabled community and university partners to pool their resources in joint activity and draw on each other's support in securing additional resources to build and sustain their local efforts.

Brief History of the International Network

Cole designed the original Fifth Dimension after-school programs as a pragmatic implementation of his theoretical approach to learning in socio-cultural context, and it has now been adapted and implemented widely (Cole 1996; Cole/The Distributed Literacy Consortium 2006). Drawing on the experience of the 5thD programs in San Diego, the La Clase Mágica program has designed and developed approaches to after-school programming based on the collaborative learning that takes place in the context of family and community life, especially among Latino communities (Vásquez 2003). Flores, Vásquez, and Clark (2014) have further explored the key role of La Clase Mágica's transformational pedagogies, linking local knowledge and culture with informal learning activities using new digital media to engage young people in transformative explorations that enable them to find their place and their voice in the world around them. Scholars, extended education practitioners, and community leaders through the world have found the Fifth Dimension and La Clase Mágica perspectives relevant to their local collaborative efforts. Programs following

these models have been developed over the last 20 or more years in the United States (including Colorado, Delaware, Florida, North Carolina), Brazil, Canada, Colombia, Germany, Mexico, Spain, Sweden, Turkey, Uruguay, and other nations.

In California, the statewide UC Links network grew out of the work at UC San Diego, as a means to institutionalize this activity system as a broad-based, long-term strategy for collaborative development of sustainable after-school programming for diverse underserved youth throughout the state (Underwood/Parker 2011). For the past 18 years, UC Links in California has been active as a collaborative network of university and community partners that provide quality after school programs and activities for P-12 youth from underserved communities throughout California, while also preparing undergraduate students for higher level professional training and graduate studies.

One key aspect of the collaboration among the programs in the international UC Links network can be seen in the movement of individuals across programs. The network has created a framework within which individuals transitioning in their careers have moved from site to site and even established new university-community partnerships in new localities. One student began taking the practicum class as a community college student in San Diego, and found the work so engaging that he continued as a site coordinator throughout his bachelors' degree, which he continued at UC San Diego. Upon graduation, he entered the Ph.D. program in Education at UC Santa Barbara, and as a graduate student, has continued his active participation with the UC Links sites there. Students at UCLA and UC Santa Cruz have coordinated sites during their doctoral and post doctoral studies; later, after securing academic appointments as professors at California State University, Sacramento and at University of Delaware, they established new partnerships in the communities near their campuses. Two graduate students who participated in their local UC Links programs in California later secured appointments at universities in Canada and Germany, where they have developed and operated new sites.

A number of programs, on the basis of initial successes, have expanded into both local and international clusters of program sites. Two programs at UC Berkeley, locally called Space2cre8 and Y-Plan, have grown by linking with multiple community partners locally and with university and community partners in other nations, including India, Japan, and South Africa. Annual UC Links conferences and listserv communications continue to foster the sharing of ideas and strategies across sites. In this way, new approaches pioneered at various sites have been shared and appropriated by other partnerships in other cities and nations. In recent years, the activity of multimedia story telling has spread to a number of sites, after the activity was presented at an annual UC Links conference. Similarly, UC Links programs focusing on the empowerment of children through engagement in community development projects have locally adapted their local approaches in sites associated with UC Berkeley, UC Santa Cruz, UC San Diego, California State University, Sacramento, Universität Augsburg (Germany), and Ritsumeikan University (Japan). The network has also promoted collaborative research and publication among its members.

The cross-disciplinary, multi-site effort of the international UC Links network which we present in this volume was based on the recognition that the educational problems that many low-income children (from all backgrounds) face are symptomatic of much broader economic, social, and political problems. All the programs in this network have sought to address explicitly the issues of educational equity in

public education from the early elementary grades through college and addressed the interrelated problems of access to excellent after-school care and to quality digital resources for the education of youth from underserved communities.

Overview of the Articles in this Issue

The four articles in this special issue present research by university faculty involved in this international network/consortium who address these issues by building on local university-community-school collaborations to create long-term, community-driven, information technology-based activities for low-income youth and their families in the after-school hours. These articles examine relevant topics in collaborative program development, in the pedagogical approaches used in program activities, and in the nature of both undergraduate and P-12 student participation in programs in the larger international network.

Lecusay illustrates the relationship between an undergraduate and a fifth-grade student taking part in collaborative game play at a La Clase Mágica site in San Diego, California. Their interaction over time is transformative for both as they engage in playful problem-oriented activities shaped by La Clase Mágica's culture of collaborative learning. In this context, both undergraduate and fifth grader, one with expertise in academic culture and the other with expertise in local culture, learn to pool their knowledge as peer experts in the joint construction of knowledge. Flores, Claeys, Fraga, and Schuetze describe how the sociocultural framework of la Clase Mágica (in this case, in San Antonio, Texas) establishes a community-based context for expansive learning in STEM (science, technology, engineering, and mathematics) education. The authors document the bidirectional benefits in self-efficacy and the development of new career aspirations and STEM content knowledge for both young students and their older undergraduate mentors in robotic activities that promote the development of math and science literacies through non-hierarchical peer collaborations. Prádos, Sánchez-Busqués, Lalueza, and Crespo describe the Shere Rom Program, a cultural adaptation of the Fifth Dimension and La Clase Mágica programs designed to address the social and educational exclusion of local gypsy and Latino young people in Barcelona, Spain. The authors describe how this program confronts the specific sociocultural and institutional challenges faced by this diverse population. Gomez-Estern, Vasquez, and Martinez-Lozano discuss how La Clase Mágica provides for the transformation of service learning through university-community engagement framed as a catalyst for social change. The authors describe the impact on the learning processes and identities of undergraduate mentors of participating in a La Clase Mágica program in Seville, Spain. In this context, through activities engaging these students with young people from a marginalized Gypsy community, the undergraduates experience service learning as "real learning" – boundary crossing experiences within a community of practice that challenge students' cultural assumptions and bring about identity development.

As the articles in this special issue suggest, the partners in this international network have learned much, both from the implementation of their local programs and from each other. The collaborative construction of viable programs is as much a process of participatory appropriation as are the programmatic activities for young people that these programs put in place. Further study of the socio-cultural dimensions

of mutual engagement from this perspective can increase our abilities to understand and improve the process of inter-institutional (i.e., cross-cultural) collaboration. The articles that follow in this issue, address some of the key questions of research and practice in extended learning and contribute to our growing understanding of how best to create, implement, and sustain programs that extend education beyond the classroom and the school day. This research is relevant both locally and internationally to questions about the complex venture of collaboratively developing, implementing, adapting, and sustaining these programs over time. The findings of these articles, we hope, will be useful to researchers and practitioners engaged in the difficult long-term task of collaborating across institutions to create sustainable extended learning programs for young people in communities throughout the world.

Acknowledgments

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Building Zones of Proximal Development with Computer Games in a UC Links After-school Program

Robert Lecusay

Abstract: There is widespread agreement that further research is needed in order to identify afterschool program characteristics useful for understanding why some programs are more successful than others. The bulk of recommendations put forth by researchers, practitioners and policy makers focus on observable characteristics of the afterschool setting as a whole. While these characteristics can be recorded on checklists for later aggregation into a quantifiable evaluation of the system, it is important to remember that they are the products of interactional processes. In the present analysis I focus on the dynamic human interactions that comprise these system-level evaluations. Drawing on video documentation of adult-child computer mediated activities in a UC-Links afterschool program, I illustrate how UC-Links design principles – which focus on the creation of *cultures of collaborative learning* – promote the learning and development of participating youth. In particular, I show how implementation of these principles support one of the key tasks in achieving quality teaching-learning after school: the successful negotiation of a common ground of engagement between interlocutors in an instructional interaction.

Keywords: Afterschool Education, Collaborative Learning, Informal Learning, Zone of Proximal Development

1 Introduction

As noted by Underwood and Parker (current volume) extensive research in recent years has identified a number of factors that are associated with "high quality" afterschool programs including a safe environment, activities that promote active engagement, the ability of youth to work in small, intergenerational groups, and extensive opportunities for participants to make choices based on their own interests (Eccles/Gootman 2002; Smith/Hohmann 2005). However, there is also widespread agreement that more research is needed in order to identify program characteristics that can help us understand why some programs are more successful than others (Durlak/Weissberg/Pachan 2010).

The bulk of the recommendations put forth by researchers, practitioners and policy makers focus on observable characteristics of the setting as a whole, such as opportunities for youth to communicate and collaborate with adults in a friendly and

non-coercive way. These characteristics are the products of interactional processes that can be recorded on checklists for later aggregation into a quantifiable evaluation of the system as a whole (Jones/Bench/ Warnaar/Stroup 2013; Papazian/Noam/Shah/ Rufo-McCormick 2013).

The present analysis, in what I intend to be a complementary fashion, focuses on the dynamic processes of interaction that comprise these system-level evaluations in face-to-face interaction between undergraduates and local youth at La Case Mágica one of the UC Links sites located in a suburb in Southern California.

Theoretical Foundation for Organizing Undergraduate-Youth Interactions

The activities at La Clase Mágica (LCM), like the activities of the Fifth Dimension, from which it was adapted, shared the characteristic that they were designed to create a "culture of collaborative learning" (Nicolopoulou/Cole 1993). A number of common principles guided the design process in order to make routine the kinds of interactions I will discuss below. These included careful attention to the intentional mixing of generations in the activity, and the provision of a great variety of activities so that the children could choose activities of interest to them. They also included careful attention to the local needs of the community institution and its constituents. These and other considerations went into designing the after-school activities at the site.

With respect to the organization of specific activities which, as an ensemble, served as the "curriculum" of the activity, the lineage of those UC Links programs that have drawn inspiration from the Fifth Dimension/LCM tradition have also employed theoretical ideas inspired by the work of the Russian developmental psychologist L.S. Vygotsky. Like many others (Brown/Campione 1990; Bruner 1990; Rogoff 2003), I have found that Vygotsky's ideas, focused around the notion of a zone of proximal development (ZPD) provide a practical way to organize the teaching/learning process. What is new in the current approach is that it moves his ideas out of the classroom and into the after-school setting, where they have proven especially helpful.

2 Implementing Zones of Proximal Development in a UC Links setting

Typical of the ways in which UC Links programs are organized, LCM is host to many activities that are constantly changing. These range from homework help, to dyadic and small group interactions involving educational and "edutainment" computer games, to outdoor games and cooking. Wherever possible, these activities are organized with respect to their potential to serve as ZPDs.

Vygotsky, himself, defined a ZPD as, ''the distance between the actual developmental level as determined by independent problem solving and the level of poten-

tial development as determined through problem solving under adult guidance or in collaboration with more capable peers'' (Vygotsky 1978, p. 86).

Vygotsky also attributed to play the property of creating ZPDs. He asserted that "in play a child always behaves beyond his average age, above his daily behavior; in play it is as though he were a head taller than himself" (1978, p. 102).

Educational computer games, from this perspective, offer rich opportunities for creating conditions that promote learning and development both by virtue of their combination of academic and game-like aspects and because in the local culture that arises in each UC Links site, the school-like aspects of the game are carried out together with older, friendly peers who provide new sources of support and motivation. This "partnership" mode of organizing teaching/learning interactions reflects Vygotsky's idea that before they are able to carry out new and more complex forms of thinking on their own, the less experienced participant in a ZPD can learn about aspects of the overall problem through joint participation with a more experienced other. In this manner, from the beginning, "future challenges" can be experienced without failure and overall engagement in the task is increased. Over time, less experienced partners learn to take over more and more parts of the whole task until, if the process is successful, they are able to carry out the task on their own. That is the pattern that I trace out in the interactions described below.

Since its introduction to the West, the ZPD has ordinarily been interpreted as a characteristic of the individual child or youth involved, and movement through this zone as change in the novice's ability to deploy skills successfully. Moll (1989, 1990) among others has argued against this individualistic conceptualization of the ZPD. He proposed that the ZPD should be thought of as, ''a characteristic not solely of the child or of the teaching but of the child engaged in collaborative activity within specific social environments'' (Moll 1990, p. 11). This interpretation shifts our focus from the individual to the social system in which children are taught, a system that emerges in the collaborative, reciprocal activities of the teachers and students. ''The focus,'' writes Moll, ''is not on transferring skills, as such, but on the collaborative use of mediational means to create, obtain, and communicate meaning. The role of the adult is not necessarily to provide structured cues, but rather, through exploratory talk and other social mediations, to assist children in appropriating or taking control of their own learning'' (Moll 1989, p. 60). ZPDs, continues Moll, ''need not be created individually for each student; rather, they can be created collectively, as children interact with a diverse social system of instruction, with mutually supporting zones of proximal development, and continually display what they know, what they are learning, and how they are using what they know to deal with new and more advanced instructional situations. And it is in transforming new situations with the teacher's help that children actively transform themselves'' (p. 67).

The activities at UC Links sites adopt this "social system" approach to designing for and analyzing the teaching/learning interactions that occur between the undergraduate students and their younger peers. Of special importance is the maintenance of a long-term association between the university group and community organization that together constitute the UC Links site. Participation in the practicum classes that are paired with visits to the community site creates a situation where the undergraduates come to the site and participate for 10-18 weeks, depending upon their institution's curriculum schedule, while the children come over periods that often last for a year or even several years. As a consequence of this circumstance, it is possible

to study the potential in teaching/learning interactions when the undergraduate is not the more capable peer, but the novice, who is encountering a game or other local activity for the first time in the company of a younger, but more experienced, participant who knows the local cultural norms and, crucially, may have a great deal more experience with the games that are the media of their joint activity. This situation positions the children as the more capable peers, and so provides opportunities for the children to lead the ''less capable'' undergraduates in activities that they initially might not be able to engage in on their own. As an ensemble, these circumstances in turn create the potential for more open communication between the undergraduates and the children, which in turn can create opportunities for more collaborative interaction.

The aim of arranging social interaction at UC Links site in ways that afford collaboration and differential, heterogeneous expertise is to occasion situations for all the participants to think about learning and its interconnectedness with development in new ways. Instead of seeing learning solely in terms of what adults can give to children, researchers and their undergraduate students begin to think of learning in terms of new ways of accomplishing valued goals and as a process of emerging mutual understanding (Bremme et al. 2006). The children, in turn, begin to think of their problem solving activities as challenges that spur them to think and act more effectively (Cole/The Distributed Literacy Consortium 2006).

3 Methods

The analysis that follows is aimed at illustrating how the UC Links design principles described above help promote the learning and development of children participating in the program. This analysis is drawn from documentation of a history of collaborative computer game play between an undergraduate and a local youth at a UC Links site. A critical part of the analysis is derived from an episode in this history in which the undergraduate and youth successfully complete a challenging level in a computer game. By following the sequence of their interactions around the computer game they played, we are able to trace their behavior in a manner that illustrates a clear pattern in the progression of their joint activity: Initially the undergraduate begins as the less experienced peer, then becomes the more experienced peer, and in the end, relinquishes his role as the child forcefully demonstrates that he has acquired the problem solving approach that success in the game requires. In order to reach this episode, I begin the analysis with relevant background regarding the history of the relationship between the undergraduate and youth at the UC Links site. This background is based on ethnographic field notes written by the undergraduate that provide crucial information concerning the focal learning interaction.

Participants

The interaction examined below involved Mark,[1] a 19 year-old undergraduate biology major, and Uri, a 9 year old fifth grader. Mark is an Anglo monolingual English speaker; Uri is a Mexican-American Spanish-English bilingual.

Setting

Mark and Uri's interaction takes place in a long-running (1989) UC Links site known as *La Clase Mágica* (LCM; Vásquez 2003). LCM is located in a Mexican-American enclave of a southern California suburb. Activities at this site are structured to create a bilingual-bicultural socio-cultural environment. The bicultural character of activities is promoted not just as a source of pride for the predominantly Mexican-American youth who attend the center four days a week (vs. the mainly Anglo and Asian undergraduates who visit the site), but as a social and cognitive tool for navigating academic and cultural challenges faced by them as they make their way through the Anglo-dominated school system.

The Computer Game

In the episode analyzed here Mark and Uri play *Zoombinis Mountain Rescue* (ZMR), a computer game that bills itself as a program for helping players learn "math of the information age" (Mah/Watson 2001, p. 26).[2] In the game, players engage in a series of logical problem solving tasks that are embedded in a fantasy narrative. The game is set in a fictional land inhabited by creatures called Zoombinis. In the narrative, a group of Zoombinis have become lost in a mountain range. The player is asked to lead a rescue party of Zoombinis to find the group. In order to reach the lost Zoombinis the player must solve a series of puzzles, each of which allows the rescue party to advance incrementally toward the lost group.

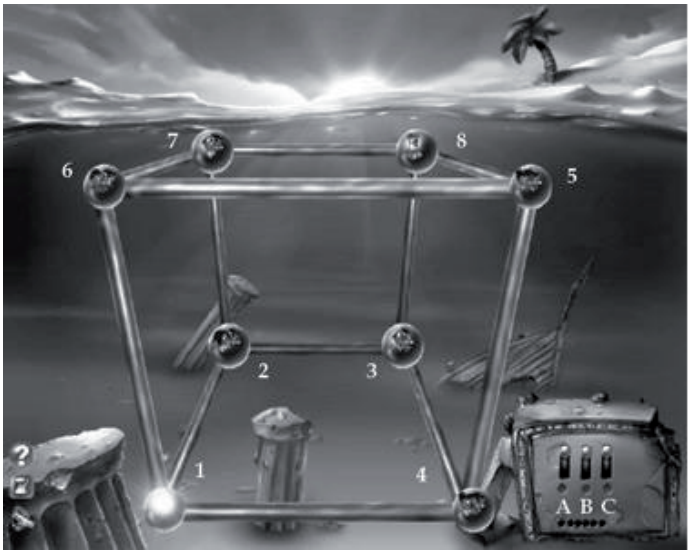
The specific puzzle Mark and Uri are playing is called the Aquacube. The player must transport the Zoombinis to an island on one side of a body of water using an underwater pipe system. The system of pipes is shaped like a cube (Figure 1). Each of the corners of the cube contains a bubble. All but two of the bubbles contain the Zoombinis that must be moved to shore. One of these two bubbles contains a white light (Figure 1, corner 1), the other contains a yellow creature known as a Fleen (Figure 1, corner 8). The object of this level is to move the light through the pipes to the bubbles that contain Zoombinis. When the light is moved to a bubble containing Zoombinis, the Zoombinis in that bubble are moved to shore; however, if the light

1 The names used are pseudonyms.

2 The game manual describes this math as the kind "that children will use in writing computer programs, solving complex problems, organizing data in spreadsheets, and searching for information on computer networks. But it is also math that children can apply to problem-solving situations in all areas of their lives, through logical thinking, experimenting, and organizing information. Zoombinis Mountain Rescue offers your child an opportunity to learn and practice these skills, as well as offering mathematical content ranging from the most basic principles of logical thinking (cause and effect, order and sequence) to concepts that are studied formally in college" (Mah/Watson 2001, p. 26).

is moved to the bubble containing the Fleen, all the Zoombinis that have been transported to shore will be lost.

Figure 1. Screen capture of the "Aqua Cube" level in Zoombinis Mountain Rescue. Numbers identifying each corner of the cube also identify the order in which Mark and Uri moved the white light (excepting number 8).



When activated using a computer track pad, levers located on the lower right-hand side of the screen (Figure 1, A, B, C) move the light in one of three pairs of directions – forward/backwards, left/right, up/down. Each of the three levers corresponds to one pair of directions. The initial task for the player is to discover through trial and error which levers correspond to which pair of directions.[3] The direction in which the light will move depends not only on the lever activated, but also on the location of the light before activation. For example, in Figure 1 the light is located in corner 1. This means that the light can only move in three of the six possible directions (i.e. forward to corner 2 if the front-back lever is activated, right to corner 4 if the left-right lever is activated, or up to corner 6 if the up-down lever is activated). The Aquacube level is challenging not only because the player has to avoid the Fleen but because the player has a limited number of opportunities to activate the levers. The six circles beneath the levers serve as indicators of the number of tries the player has left. When the player has exhausted one try, one of the circles turns red.[4]

3 The directions corresponding to each lever are randomized every time that the level is played anew.

4 The ZMR manual explains "the educational benefits" of and appropriate strategies for the Aquacube level as follows: "This puzzle has a 'guess my rule' element, challenging the player to deduce the function of each lever. Using trial and error to collect evidence is an important first step. With the first try, the only option is to guess, by pressing a lever and observing the result. When a player determines, for example, that "the first lever moves the light up and down, and the second lever moves the light front to back," one can then infer the result of pressing the third lever. Now one must plan carefully, remembering that there are a limited number of moves. Spatial reasoning is also important when observing how the light moves along the three dimensions of the cube. In the Aquacube, a player must learn to distinguish between directional paths that may appear to be very similar, but are actually along different dimensions" (Mah/Watson 2001, p. 30).

Methods of Observation and Documentation

The episode examined here is drawn from a video data corpus of interactions between undergraduates and children at LCM. The corpus was generated as part of a four month, qualitative study of the role that non-verbal communication plays in the development intersubjectivity between adults and children jointly engaged in computer game play.[5]

Videos were gathered using one video camera positioned above and behind the computer monitor displaying the computer game. Screen recording software was used to simultaneously capture activity on the computer screen.

In addition to video recordings of undergraduate-student interactions, the data set included my own field notes and those written by undergraduate vistors to LCM (including Mark's) who were enrolled in the practicum during the period that the study was conducted. These field notes were analyzed for text describing (a) undergraduate experiences participating in the specific instances of game play that were analyzed; (b) prior interactions between the undergraduate and the child who participated in the game play; (c) undergraduate perspectives on learning, development, and teaching; and (d) undergraduate perspectives on the child with whom they engaged in the joint play. This field note data was gathered to build the cultural-historical knowledge base necessary for analyzing and interpreting the specific episodes of game play.

4 Mark and Uri's Early Interactions at LCM

In field notes written during his first three weeks at LCM, Mark wrote that Uri did not like going to LCM and that he especially did not like doing homework. Mark explains Uri's behavior in part by drawing on memories of his own childhood, writing that a child who just left school for the day would be put off by having to go somewhere else to do what that child sees as more schoolwork. Additionally, during these early weeks at LCM, Mark describes Uri as frustrated with his failures to successfully complete some video games; as needing to "get his confidence back up"; as someone who is "not the most outgoing"; as needing help focusing; as someone who rushes through his school work ("I was a little suspicious because this would be the 4th time . . ."); as someone not entirely to be trusted.

5 In the larger study from which the Mark and Uri example was drawn the strategy for documentation and analysis was as follows. Twice a week during a ten week period video recordings were made of undergraduates and children engaged in joint ZMR played. The choice of ZMR as the focal game was driven by the fact that (a) it was one of the most frequently played games at LCM by both undergraduates and children and (b) given the clearly defined problem solving tasks required to complete each of the ZMR game levels, it provided a way to assess the degree to which the undergraduate and the youth shared a situation definition (Wertsch 1984). From this corpus of video recordings I then selected examples of game play in which game levels were successfully completed. Because I was interested in examining the development of intersubjectivity, I then further narrowed the range of examples for analysis from this sub-sample by selecting instances in which the successful completion of the level was preceeded by some degree of interpersonal tension between the undergraduate and child that was noticeable in the verbal and non-verbal communication. Finally, I drew on concepts from linguistic anthropology – participation framework and interactional stances (Goodwin 2007) – as analytic tools for coding the undergraduate-child interactions to identify the tensions and their resolutions (see Lecusay 2013).

Three weeks into the academic quarter Mark's notes reveal changes in his impressions of Uri. One factor that ushered in these changes was differences in cultural knowledge between Mark and Uri. Witnessing an interaction between an adult LCM staff member and Uri, Mark learned that Uri spoke Spanish. Furthermore, Uri introduced Mark to Caesar Chavez, the famous Mexican American labor leader and civil rights activist. Mark's field notes describe these moments with admiration for Uri. He begins describing Uri as a "smart kid."

Prior to the problem solving episode analyzed from the video recording, which took place on February 14th, Mark and Uri had worked and played together on four separate occasions. On each of these occasions their interactions began with Mark assisting Uri with homework and ended with the two collaboratively playing one of the computer games available at LCM.

Relative to Mark, Uri was a ZMR expert. Uri had played ZMR before, including the Aquacube level, numerous times on his own. He knew the mechanics of the Aquacube level and the overall goal – to move all of the Zoombinis out of the Aquacube and onto the nearby island. Mark and Uri played ZMR for the first time together on February 7th. This was Marks' first time playing ZMR, and the first time that he and Uri had played the Aquacube level together.

The video record of this February 7th episode begins with Uri explaining to Mark that the Aquacube level is "the hard part." He tells Mark that the last time he played this level he reached a point where he simply gave up and skipped over it to the next level. (In ZMR players have the option of cutting their losses and moving onto the next level).

Quitting and skipping ahead in the Aquacube level involves leaving behind the Zoombinis that have not made it to shore; this action will eventually result in losing the game. At the first sign of failure Uri attempts to skip this level, but Mark encourages him to continue and complete the level despite Uri's noticeable frustration. Mark also appears frustrated. Not only does he initially have trouble establishing the goals and mechanics of the unfamiliar game, but he has difficulty getting Uri to persist in completing the level.

The video record of this February 7th episode also shows clearly that Uri has an accurate understanding of the mechanics of the game which he demonstrates to Mark: he understands that each lever corresponds to the directions of movement for the light as well as the important information that the red lights below the levers indicate the number of turns left to complete the task. These observations provide the context for the critical session to follow.

5 Analysis of Collaborative Game Play

I now examine the February 14th episode in which Mark and Uri collaborate to successfully complete the Aquacube level. Studied as a process of negotiating a common ground of engagement (Matusov 1996), the interaction unfolds in a series of discrete segments.

Segment 1: Explanation before Action

Just prior to Uri making his first move, Mark comments that "we gotta figure out what the levers do" and asks him what the lever he plans to activate (lever A) is "gonna do?" Uri does not verbally answer, but upon activating lever A he "responds" by performing a hand gesture that emulates the movement of the light (front to back). Mark simultaneously performs a similar gesture and remarks with some emphasis, "okay, that one moves you this way."

With Uri poised to activate lever B, Mark asks him to consider what the lever might do. Again, Uri does not reply but simply activates the lever. This move also leads to the rescue of two more Zoombinis.

Segment 2: Learning Strategy vs. The Next Best Move

With the light now positioned in corner 3 Uri has to proceed with more care than he did in his prior two moves. If Uri selects lever C, the only lever he has not yet activated, the light will move to corner 8 where the Fleen is located. This move would result in Uri loosing all of the Zoombinis he has rescued so far. Mark quickly intervenes, commenting on the function of lever C ("that one's gonna move you up"). Modeling the kind of deductive reasoning that the Aquacube level of ZMR is designed to promote, Mark then retraces the trajectory taken by the white light on the computer screen while saying – "remember, we've already gone this way . . . and we've already gone this way … so the last direction you're able to go is what?"

Although Uri does not verbally respond to Mark's reminder and prompt, he does perform gestures that suggest he knows, correctly, to move the light to corner 8. However, Mark is not asking him for the next best move. He is trying to orient Uri to the larger goal of deducing the function of all three levers ("the last direction you're able to go is what").

Uri and Mark's actions throw into relief the different approaches that each is taking toward the game – they do not wholly share a "common ground of engagement" (Matusov 1996). Mark is focused on teaching an overarching strategy, one that from his perspective requires Uri (a) to exert enough self-control to (b) stop and consider the directionality of each lever and (c) to apply this understanding to selecting the most appropriate lever. Uri on the other hand appears to be operating on the basis of (a) establishing the location of the light and (b) determining the next best corner to move to without stopping to think through the consequences.

Segment 3: A Change in the Structure of the Problem Solving Activity

In the following segment Mark improvises a short lesson to help Uri "discover" the function of lever C. Mark begins to construct an imaginary 3-D model of the cube on the table in front of the monitor by using his fingers to retrace the trajectory taken by the light in the game thus far:

Having retraced the light's trajectory up to corner 3 in the imaginary off-screen model of the cube,

Mark now stops his right index finger at corner 3 and, as he did when he was using the screen as a point of reference, asks Uri the same question he did earlier: "what's the last direction you can go?" Once again, Uri does not answer verbally but ambiguously moves his arm upwards while simultaneously moving it from side to side. Mark's question, however, was rhetorical. Before Uri can complete this ambiguous gesture Mark cuts in and answers the question himself ("up 'n down, right?"). After this, Mark confirms with Uri that he understands the consequences of moving the light to corner 8. Uri correctly tells him that this would "kill all" of the rescued Zoombinis.

By leading Uri in jointly producing an imagined model of the cube, Mark changes the joint focus of cognitive and visual attention (Goodwin 2000), and potentiates a new way of understanding the activity. This change in the conditions for how Mark and Uri align their understandings has a number of consequences for how they subsequently coordinate with one another and for how Uri begins to change the way he plays the game. First, Mark's use of a gesture-based, imaginary 3-D model of the problem shifts Uri's attention from the screen – what has been the shared point of attention for the prior twenty minutes of ZMR game play – to a new point of shared focus. Through this attentional shift Mark focuses Uri's attention in a new way. Now the task becomes one not only of remembering the trajectory taken by the light, but of using this information as a basis for assessing consequences in the game on the screen. Uri joins Mark in comparing the information "displayed" in the ephemeral, off-screen gestural model to the information on the screen itself. It is also significant that as an abstraction of the game space, the off-screen model offers both a consequence-free space for testing theories about the state of the game and helps to focus attention on those aspects of the game relevant to Mark's attempts to get Uri to reorganize his game play more thoughtfully. Lastly, by creating the off-line model himself, Mark gains control over the actions in "the game," that is, he has greater control over his modeling of self-control in the imagined space he is making than when Uri has control of the computer mouse.

Critically, at this point Uri displays cooperative alignment with Mark. He does this not only by maintaining his gaze on Mark's hands as Mark "draws the model" through his gestures, but he also uses the imaginary off-screen model to assess the consequence of activating Lever C in the computer game itself.

Segment 4: Transfer of Responsibilities – Uri thinks before he acts

In the final segment of this episode, Mark and Uri collaborate to successfully complete the level. Throughout most of this final segment Mark continues his pattern of intervening immediately after Uri has activated a lever, using known-answer-questions to emphasize aspects of the game to be considered before proceeding (e.g. "which [lever moves] across"; "how do we [move the light] down there").

Mark's pattern of behavior makes it difficult to assess whether Uri has himself adopted the "think before you act" approach because Mark's verbal actions take up the conversational turn immediately after the activation of the lever – the temporal point best suited for Uri to articulate this approach. However, after several repetitions of this pattern, for the first time, Uri seizes the turn after the activation of a lever. Rather than simply activating a lever as he had done in prior turns, Uri first

verbally describes the next move ("and then we want to go up"), gets confirmation from Mark, and then correctly activates lever C.

Significantly, one move later, Uri again checks with Mark before making his move. Critically, he asks Mark for confirmation about the functionality of the lever he plans to activate. Uri correctly points to Lever C, get's verbal confirmation from Mark, and activates the lever. Success!

6 Discussion and Conclusion

My aim in presenting the analysis of Mark and Uri's collaborative game play was to provide a "close up" illustration of the interactional processes that underlie observable characteristics of extended learning settings promoted by researchers and practitioners as instrumental to creating quality education. Taking, for example, qualities outlined in the recent *Youth Program Quality Assessment Validation Study* (Smith/Hohmann 2005), we see that Mark and Uri's interaction took place in a *supportive environment* populated with staff that were *welcoming*, *encouraging*, and which helped youth *build new skills*. This was also an environment in which youth had opportunities to *participate in small groups* and *partner with adults*; an environment in which youth could *make choices based on their interests,* had opportunities to *reflect,* and could *set their own goals and plans*

What my analysis throws into relief is the engagement in academically and socially valued modes of thought and disposition (Greeno/Gresalfi 2008) that occurs when UC Links principles are used to design quality after-school education. Important in this respect is the way that multiple activities – organized within a multigenerational settings – create myriad opportunities for high quality interactions that have so many of the properties of a ZPD.

Recall Moll's proposal that we understand that ZPDs, ''need not be created individually for each student; rather, they can be created collectively, as children interact with a diverse social system of instruction, with mutually supporting zones of proximal development, and continually display what they know, what they are learning, and how they are using what they know to deal with new and more advanced instructional situations" (p. 67). The idea of a diverse social system of instruction is key here, particularly the recognition of the need to attend to the specific characteristics and needs of the social environment in the design, implementation and study of after-school activities.

As Nicolopoulou and Cole (1992) noted on the basis of their work in another Fifth Dimension site, UC Links activities that follow the model of the Fifth Dimension and LCM are organized to create and maintain *cultures of collaborative learning*. These cultures involve the creation of make-believe worlds constituted by a system of shared rules. Children's taking an active role in their own education is facilitated through their understanding and acceptance of this system of shared rules. Most critical for our purposes here, it is important to understand the role of the undergraduates in this context: "They are there to guide and facilitate the children's development—not to act as authoritarian figures or simply to serve as sources of information in a one-way transmission relationship" (Nicolopulou/Cole 1992, p. 292).

It is no accident that there is significant overlap between those characteristics commonly identified with successful after-school programs and the basic principles of a culture of collaborative learning. Uri and Mark's interaction, considered as an instance of a culture of collaborative learning in action, shows how these principles and characteristics support one of the key tasks in achieving quality teaching-learning: successful negotiation of a common ground of engagement between interlocutors in an instructional interaction.

What were Mark and Uri negotiating? What did it take for this negotiation to succeed? With respect to what was being negotiated, we need to consider the hybridity afforded by the culture of collaboration. In this case, the hybrid is between:

1. The formal and informal approaches to game play that Mark and Uri brought to the table.
2. Mark's systematic "think before you act" approach and Uri's trial-and-error approach.
3. Mark's background – an older and admired university biology major – and Uri's background – a Latino fifth grader, bilingual in English and Spanish.

Mark was intent on teaching Uri how to play Zoombini's *systematically*. No one told him that he had to teach Uri, only to be a friendly, older peer who had a lot to learn himself. He wanted Uri to understand the overall logic of the game and to draw on this logic to strategize his subsequent moves in advance. Like most undergraduates new to a UC links site, Mark's default approach to helping Uri was colored by his many successful years of classroom experience.

Mark's dominance over the bulk of the interaction is manifested through his adoption of the conventional initiation-response-evaluation mode of triadic instructional discourse (Cazden 1988; Mehan 1979). At times, from my perspective and that of anyone who implements a UC Links program, Mark's reliance of this way of organizing his collaboration with Uri actually might have impeded the course of events. Indeed, Uri's struggle to communicate with and understand Mark highlights the fragility of the situation. But in the end, Uri breaks Mark's overly-instructional routine and demonstrates that he has acquired the desired skill and disposition.

Additionally, one could argue that by deploying this form of discourse Mark was seeking verbal confirmations to his queries as evidence of Uri's understanding. As we saw, however, it was primarily through physical gestures or actions in the computer game that Uri initially communicated his understanding of, and approach to, the game. This disjuncture between Uri's actions and Mark's expectations produced sufficient confusion and tension to lead Mark to perform his improvised remediation of the activity (the gestural production of the Aquacube). And this unusual, spontaneously generated, mode of interaction in turn reoriented Uri away from simply playing the game in a trial-and-error mode and toward focusing on understanding and implementing the functionality of each of the three levers in order to play the game successfully. This transformation was reflected in the change in Uri's engagement with Mark, a change from engaging primarily with the game – thinking through acting on the game – to engaging with Mark to think about how to play the game (e.g. externalizing his thinking as a way to verify with Mark the accuracy of his intended moves). Tellingly, Uri's externalization of his thinking functioned not only as a form of self-regulation but also as a means of disrupting Mark's dominating pat-

tern of intervening each time Uri made a move in the game. In other words, whereas the agency resided largely with Mark in the beginning of the episode, by the end of the episode it was clearly Uri's.

With respect to the question of what it took to successfully negotiate Mark and Uri's formal/informal divide, we have to consider why it was that Uri and Mark stuck it out – why, despite all the frustration and confusion that emerged in the combination of the formal and informal in Mark and Uri's game play, they both continued to voluntarily participate in the activity. The key here is the fact that Mark and Uri had a history of affiliation, play, and work together at LCM. They also had a specific history of playing Zoombinis together, and this history included instances when Mark was more expert at certain activities than others (e.g. thinking formally about Aquacube game play), and instances in which Uri was more expert than Mark (e.g. Uri explained the mechanics of the Aquacube to Mark when he first encountered Zoombinis).

Finally, the Aquacube session highlights the potentially important role that games like Zoombinis can play, under the right circumstances, in promoting learning in after-school environments. As the episode with Mark and Uri illustrated, computer games can function as tools to occasion situations in which an expert isn't required in order to teach students useful things. The games mediate between college students with their relative expertise of academic culture and the after-school youth who are experts in the local culture. These games can be key to creating a "smart context" (Barab/Plucker 2002), which is another way of characterising a zone of proximal development.

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La Clase Mágica as a Community Based Expansive Learning Approach to STEM Education

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Abstract: As an alternative to experimental design, using a social design experiment methodology, we analyzed the Academy for Teacher Excellence's *La Clase Mágica's* (LCM) Robotics Clubs, a university-school collaborative partnership. Given the scarcity of minority representation in the STEM fields (science, technology, engineering, and mathematics), we established robotics clubs to provide young learners, ages 5–14, with STEM opportunities to engage in playful informal learning that promotes creativity, mathematical, and scientific skills along with other forms of literacy. In this manuscript, we describe the learning process that occurs within the robotics clubs established at seven schools who serve large numbers of underserved-underrepresented populations. Multiple data sources include meeting notes, interviews, field notes, and focus groups. The use of multiple data sources, peer-review, and triangulation of the data assisted in establishing trustworthiness. We found that this community based expansive learning approach contributes to the mutual learning benefits of the different participants, learners (protégés) and undergraduate students (mentors).

Keywords: Communities of Practice, Robotics, Latinos, Informal Learning, STEM

1 Introduction

In order to advance our society, we concur that there is a pressing need for individuals to pursue Science, Technology, Engineering, and Mathematics (STEM) careers. The National Academies Press urges the importance of increasing the science and engineering talent to address the present economic challenges (Sciences, Engineering, & Medicine 2011). This is a major concern to the leadership of the U.S., especially when the ethnic minority population, now the largest segment of the society, is underrepresented or not pursuing a STEM field (Dowd/Malcom/Bensimon 2009; Sciences, Engineering, & Medicine 2011). Kao (2007) suggests that not educating a large segment of the population is what he calls the "wicked problem of education" (p. 101). Numerous obstacles denying equity in educational opportunities keep the ethnic minority population from getting a quality education (Valenzuela 1999; National Science Board 2010). To increase ethnic minority participation in the STEM

areas requires early exposure and engagement (National Research Council 1996, p. 22; Lee/Luykx 2007). Moreover, researchers speak to the value of inclusive settings, which includes children with varying abilities and language levels, for promoting young children's STEM development (Moomaw/Davis 2010). To alleviate the STEM crisis while providing opportunities for underrepresented populations, several researchers recommend the implementation of educational robotics programs and provide strategies to augment the experience (Cannon et al. 2007; Ludi 2012; Rosen/Stillwell/Usselman 2012). According to Eguchi (2012), "educational robotics is the term widely used to describe the use of robotics as a learning tool" (p. 3). For example, LEGO robotics, because of its interdisciplinary, collaborative, and authentic learning opportunities, can be a conduit to STEM education (Gura 2011). Further, Melchior, Cohen, Cutter, and Leavitt's (2005) longitudinal study indicates that learners engaged in robotics clubs and competitions had an increased awareness of STEM fields and college opportunities. Yet, despite these efforts and similar activities, enrollment and completion rates in the STEM areas continue to be dismal (Snyder/Dillow/Hoffman 2009). In the case of Latinos and other minority students in low-income communities, participation in robotics clubs is limited due to access, high student mobility/transfer rates, and transportation (Yuen/Ek/Schuetze 2013; Yuen/Ek/Rodriguez 2013). In order to address these challenges and to increase ethnic minority students' awareness and interests in STEM careers, we considered Vasquez' (2003) *La Clase Mágica* (LCM) as a promising approach. LCM, which was developed and situated in Latino low-income communities in the larger San Diego area of California, has also provided the theoretical and practical foundations for UC Links, a statewide after-school network funded by the University of California System, and for a larger international network that now reaches across the United States and internationally (Vásquez 2003; Underwood/Parker 2011). Gutiérrez (2014) credits Vásquez (2003) for "an enduring model whose sensitivity to local culture and historical legacies make it portable, permeable, and dynamic and substantially easier to situate and instantiate across a range of communities and contexts" (p. ii).

Given the scarcity of minority representation in the STEM fields, we established *La Clase Mágica* (LCM) Robotics Clubs to provide bilingual and culturally diverse learners (protégés) with playful informal learning opportunities that promote creativity, mathematical, and scientific skills along with other forms of literacy. One of the premises of LCM is to have peer collaborations and horizontal communication. Nevertheless, it is also important to have a knowledgeable other within the community of practice that guides the learner in their acquisition of knowledge. Thus, similar to Bers and Portsmore's (2005) partnership model for integrating LEGO robotics, in LCM Robotics Clubs, teacher candidates and undergraduate engineering majors serve as mentors. As Yuen, Ek, and Schuetze (2013) describe:

> Following the success of the original LCM and the one running at our university, we have based the design of our robotics club on a similar model that emphasizes: 1) awareness of children's language and culture, 2) the use of manipulatives and technology to enhance scientific and mathematical knowledge, 3) and mentoring (p. 2).

Hence, through the LCM's Robotics Clubs, young Latino bilingual and African American learners (protégés) experience early exposure and engagement with the STEM areas. Additionally, LCM Robotics Clubs provide teacher candidates' opportunities to acquire or deepen their cultural, pedagogical, and STEM knowledge

for becoming culturally efficacious teachers who can *engage in transformative practices* (Flores/Clark/Claeys/Villarreal 2007; Yuen/Ek/Rodriguez 2013). To date, we have not found research that explores the benefits to undergraduate students who serve as mentors in robotics clubs.

While there has been some anecdotal evidence reported on the educational and affective benefits of educational robotics for upper elementary, secondary, and college students (Barker/Nugent/Grandgenett/Adamchuk 2012; Melchior et al. 2005; Nourbakhsh/Crowley/Wilkinson/Hamner 2005; Nourbakhsh/DiSalvo/Hammer/Lauwers/Bernstein 2007), there is a paucity of research analyzing the learning opportunities and outcomes for elementary and middle school students (Baker et al. 2012; Schuetze, in preparation). The research focus appears to be on the evaluation of various educational robotics programs (Barker et al. 2012; Gómez/Bernstein/Zywica/Hammer 2012). Despite the research findings, over the last 20 years, educational robotics have been incorporated into the formal and informal K-16[1] curriculum (Klassner/Anderson 2003; Li/Chang/Chen 2009). Moreover, Schuetze (in preparation) suggests that the focus of educational robotics has been teacher-centered, rather than learner-centered. He recommends that research efforts are needed to better understand the rich learning process that occurs as learners engage in building and programing robots.

2 Methodology

In this study, we use Gutiérrez' and Vossoughi's (2010) recommended social design experiment methodology as an alternative to experimental design.

> Social design experiments – cultural historical formations designed to promote transformative learning for adults and children – are organized around expansive notions of learning and mediated praxis and provide new tools and practices for envisioning new pedagogical arrangements, especially for students from nondominant communities (p. 100).

Multiple data sources include meeting notes, interviews, field notes, and focus groups. The use of multiple data sources, member checking, and triangulation of the data assisted in establishing trustworthiness (Patton, 2002).

Research Questions

How do Robotics Clubs as a community of practice assist in expanding participants' knowledge?

How do Robotics Clubs mutually benefit all participants?

1 K-16 refers to formal and informal education systems for students in grades Kindergarden through 12 and post-secondary education. The purpose of K-16 is to align academic content and instructional practices, including the creation of policy and graduation requirements.

Sites and participants

This study was conducted at multiple sites: five elementary schools (grades 3–5) and two middle schools (grades 6–8) in a city situated in the southwestern part of the United States. All seven schools are located in low-income communities and the majority of children qualifies for free or reduced lunch.

Afterschool Club Sites. All of the schools participating identified at least half of their total student population as Hispanic. These participating schools also have a teacher population of at least fifty-percent or more self-identifying as Hispanic**.** The majority of the teacher club sponsors are Hispanic (5), followed by White (3), and African American (1). Table 1 provides an overview of participants' demographics.

Table 1. Participating Sites Demographics

LCM Robotics Site	Student Hispanic Population	Economically Dis-advantaged	Teacher Hispanic Population
Elementary 1	98.40%	93.20%	60.60%
Elementary 2	99.30%	95.70%	88.60%
Elementary 3	78.10%	82.70%	65.50%
Elementary 4	95.70%	94.50%	79.00%
Elementary 5	98.10%	91.90%	62.20%
Middle School 1	92.90%	90.50%	2.2.7 58.00%
Middle School 2	90.00%	77.20%	57.20%

Source: Texas Education Agency AEIS Reports 2011–2012

UTSA Mentors. Undergraduate students (mentors) from across colleges at the University of Texas at San Antonio (UTSA) volunteered to mentor the elementary and middle school learners (protégés) participating in the afterschool robotics clubs. Table 2 shows that a total of thirty-seven undergraduate students participated as mentors for two consecutive academic semesters from the following majors: Computer Science (CS), Interdisciplinary Studies with Teaching Concentration in Math and Science grades 4–8 (IDS), Kinesiology (Kines), Mathematics (Math), Mechanical Engineering (ME), and Science.

Training. Prior to the implementation of the clubs to ensure program integrity, teacher sponsors and university mentors received basic LEGO Robotics training. Each undergraduate mentor was required to complete six contact hours, while the teacher club sponsors received three days of training. Training included building a robot, basic programming, and practice completing basic challenges similar to what elementary and middle school protégés would complete throughout the club meetings and while at competition.

Frequency of Meetings. Each afterschool club met one day a week for one to two hours, excluding the weeks when there was a major holiday break or state mandated testing. From the beginning of September to the middle of May, an estimated total of 21 meetings were held, with one site meeting 39 times.

Table 2. Mentor Descriptive Data

Academic Major		CS	IDS	Kines	ME	Math	Sciences	Total
Gender								
	Male	1	2	1	13	4	3	24
	Female	0	6	0	3	3	1	13
Ethnicity								
	White	0	0	0	5	1	1	6
	Hispanic	1	8	1	8	4	3	25
	African American	0	0	0	1	1	0	2
	Asian	0	0	0	2	1	1	4
Classification								
	Freshman	0	0	0	5	1	0	6
	Sophomore	0	0	0	6	1	0	7
	Junior	1	0	1	5	4	2	13
	Senior	0	8	0	0	1	2	11
Total Mentors		1	8	1	16	7	4	37

Source: The Acadamy for Teacher Excellence 2013

Materials. Multiple sets of the LEGO Mindstorms NXT base kit, as inspired by Papert (1980), were selected and provided to each LCM Robotics Club. Each kit contains 431 elements including the programmable NXT brick, three servo motors, and several sensors to include: touch, light, ultrasonic, and sound (The LEGO Group 2013).

Club structure. The FIRST LEGO League (FLL 2013) competition model was used as the structure for guiding club activities because FIRST has demonstrated success in engaging and increasing high school graduation rates and college enrollment for minority students (Afterschool Alliance 2011). FLL engages teams of up to ten students in both a thematic game challenge as well as authentic research on a self-selected problem within the game theme. The LCM Robotics Clubs had an average ratio of 1 mentor per 3 protégés and 1 to 2 club sponsors. During the 2012–2013 FLL season, the theme was 'Senior Solutions.' As a result, the game missions focused on challenges faced by senior citizens: taking medicine, exercising, walking upstairs, and several others (FLL 2013).

Procedures. To identify a research project with the theme of 'Senior Solutions,' the robotics clubs are tasked with interviewing senior citizens in their community. Then, team members engage in a discussion about the variety of challenges identified by the senior citizens to make a decision on the research question that they would address as a team. The teams conduct research and prepare to present their solution to invited community experts, such as health providers. This independent research and presentation provides protégés opportunities to be creative and engage

in authentic activities that promote mastery learning (Bandura 1993). In order to score points in the tournament, teams present their research and design, as well as accomplish a variety of missions (program and control of robot) in a friendly competitive format. To emphasize the team concept, an award is given to the team with the highest score on the table missions. Nine additional trophies[2] are awarded based on presentations and interviews of the team conducted by three separate panels of judges in the areas of robot design, research project, and the FLL core values (e.g. gracious professionalism, teamwork, cooperative learning, discovery learning, and friendly competition). Two additional trophies are awarded to championship quality teams. Teams are allowed to compete at one of three local qualifier tournaments and the top third of the ranked championship quality standards teams from each tournament then competes at the local Championship Event.

3 Theoretical Framework

Our theoretical framework is guided by a socioconstructivist transformative lens that intersects the work of Freire (1970) and Vygotsky (1978), among others. We see learning occurring within a community of practice (Lave/Wegner 1991) as an expansive process in which protégés' depth of knowledge is guided through negotiation and deliberation with others (Engeström/Sannino 2010). We also situate our theory of learning as Clark, Flores, and Vásquez (2014) eloquently describe as based on the Mayan's notion of interdependence between humans and nature:

> Using the snail as a symbolic tool of transformation, we conceptualize learning as a spiral process that begins with the individual in harmony with others – expert guides – family, teachers, friends, etc. As learners encounter others along their cyclical path, their sphere of knowledge widens and deepens (p. 215).

Our theoretical lens is also informed by Papert's theory of constructionism (1980). Papert differentiates constructivism from constructionism with the latter focusing on the learner building or constructing models, such as sand castles, block structures, and robots. In these learning rich activities, Papert suggests learners have the opportunity for engagement and creativity, which are aligned with the tenets of *La Clase Mágica* (LCM) that include joint-mediated activities and dialogue within a community of practice (Flores/Vásquez/Clark 2014). Constructionism also requires negotiation and deliberation with peers in the building process of a model that complements Engeström's (2001) expansive theory.

Literature Review

Papert (1980) has been a trendsetter in K-12 educational robotics since his early days at Massachusetts Institute of Technology (MIT) when he piloted Turtle Robots

2 Trophies are awarded for best presentation of research, best research, most innovation solution to the research problem, best computer program, best mechanical design, most innovative solution to the game missions, best demonstration of teamwork, best demonstration of communication, and best demonstration of exhibiting the FLL Core values.

with children. His work led to the development of LEGO RCX Mindstorms along with other educational robotics kits, which allowed the proliferation of educational robotics (ER) to be integrated into classrooms. Consequently, engineering and technology knowledge skills are promoted (Bers/Portsmore 2005; Feng/Hung/Sui 2010; Klassner/Anderson 2003).

These ER kits provide protégés' opportunities to creatively design, program, and control robots. With the onset of educational robotics, in the early 1990's, organizations such as FIRST (2013), BEST (2013), and Botball (2013) were formed with the intent to engage teams (learners, teachers/sponsors, mentors) in meaningful problem-solving competitions that promote interest in STEM careers. To build suspense and continuously motivate the protégés' engagement, an annual theme or challenge is broadcasted nationwide. With anticipation for the annual competition, as a joint activity, teams begin the iterative process of planning, building, and testing innovative designs to address a community challenge, such as meeting the needs of people with physical disabilities. In the FIRST LEGO league competitions, which is the model used in our Robotics Clubs, teams are recognized for a variety of efforts, including team building, innovative design, and presentation of the problem-solving process and solution. Yuen, Ek, and Schuetze (2013) indicate: "This aspect creates authentic learning opportunities as the students select the problems to solve and share their solution with others" (p. 2). In addition to team work, which is an authentic workplace skill, other effects include expanding learners understanding of STEM concepts (Melchior et al. 2005; Nugent/Barker/White/Grandgenett 2011). Driven by the desire to design an operative robot, learners acquire concepts such as ratios and proportional reasoning within a context of informal learning (Petre/Price 2004). For example, as learners design robots' lifts and arm mechanisms, they use ratios and proportional reasoning to determine speed and torque (rotational force).

Rusk, Resnick, Berg, and Pezalla-Granlund (2008) suggest that using an interdisciplinary approach to broaden the robotics clubs experience attracts diverse learners with varying interests and abilities. They provide the following strategies in implementing an interdisciplinary approach: "(1) focusing on themes, not just challenges; (2) combining art and engineering; (3) encouraging storytelling; (4) organizing exhibitions, rather than competitions" (p. 1). For example, in Ribeiro, Costa, and Pereira-Coutinho's (2009) case study, using Grimm fairy tales as their theme, they engaged 4th and 6th grade Portuguese children in a collaborative team process in which tasks were distributed based on individual's strengths and interests to design and develop costumes, props, and robots. As a result, Ribeiro et al. (2009) point out the benefits of integrating ER with dance, dramatic storytelling, and music: "it develops the critical thinking; it develops logical thinking; it increases the interaction and the autonomy in the learning process; and, it raises the interest and motivation for learning" (p. 400). As a means to attract more females into robotics, rather than focusing on competition, Hammer, Lauwers, Bernstein, Nourbakhsh, and DiSalvo (2008) created the Robot Diaries workshops as an interdisciplinary approach for young middle school girls to engage in robotics and technology discovery learning. In comparing the Robot Diaries and Digital Youth Network (DYN), Gómez et al. (2012) observed two types of collaborative models. The DYN focuses on designing robots for social change with the goal of participating in robotics competitions, whereas RD promotes girls participation in the exploration and use of creative technology. Researchers found that both models assisted in building technical knowl-

edge, and provided opportunities for collaboration and leadership for the 9–14 year old participants.

4 Results

We will first provide an overview of three clubs as case studies (Yin 2003), which participated in the local FLL competition. Specifically, we will describe the process undertaken in their research project and robotic solutions. Teams A and B are elementary school clubs, while Team C is a middle school club. This will be followed by a thematic analysis of what occurred within the community of practice.

Research, Process, and Robotics Solutions

During the initial club meeting with the teacher club sponsor, mentors, and protégés, the teams reviewed the FLL project document to begin their brainstorming process. In addition to identifying the theme, this document guides the teams' work, which includes the FLL basic components: choose a community, identify a problem, create an innovative solution, share with others, and present a solution at a tournament. A initial step is to have the team define the community in which they will identify a problem to solve. The sponsor and mentors guide the team with prompting questions: Who should be part of our community? Who should we interview? Who do you know who is a senior citizen? In our teams' cases, they chose to define the community as the school staff and family members.

In the second meeting, based upon protégés expressed interests or observed strengths, the teams were divided into sub groups to accomplish tasks, such as interviewing, online research, and speaking to experts in the community. The sponsor and mentors, in subsequent meetings assisted the sub groups to share their findings with the team and to begin the discussion about potential solutions to the problem. With the facilitation of the club sponsor and mentors, all possible solutions were explored as part of the engineering design cycle. At the team competitions, clubs are evaluated on their research solutions, robotic design, and presentations using the FLL core values: teamwork, effective communication, and engagement of their community in STEM activities.

Team A Research Solutions and Robotic Design. As a result of initial deliberations, Team A interviewed senior citizens with sleep apnea; the seniors talked to the team about the condition and impact on their daily lives. In subsequent meetings, while one sub group designed a novel breathing device, another sub group conducted research on the brain. Team A's final design was a smaller and more comfortable breathing device. At the competition, Team A did not advance from the qualifier level, but learned that they needed to provide evidence and document their project's development as part of their first year learning process. Nevertheless, sponsors reported that the protégés developed a sense of 'team' and self-confidence in guiding each other with various aspects of the competition.

Team B Research Solution and Robotic Design. Team B followed similar research and design processes as Team A. After team deliberations, they decided to

create a hand-held device for seniors with Alzheimer's who live alone. This device would serve to remind seniors about their daily routines. After interviewing their grandparents, the team researched Alzheimer's disease and the effects on brain. This teams' novel solution was to modify a voice recorder with user-friendly buttons and attaching a wrist strap. Initially, Team B activities were dominated by males, which diminished the role of females on the team. However, the sponsor observed that the process of question prompting, deliberations, and encouragement from adults allowed females to increase their self-confidence, participation, and leadership role in team activities and discussions.

At the local qualifier event, Team B competed with their robot design to accomplish game challenge tasks associated with the Senior Solutions theme. These challenges were of the typical LEGO robot types of moving or retrieving small objects on the competition board with a time limit of two minutes and thirty seconds per round. In this season, the challenges consisted of mobility issues for seniors, assistive devices, and senior recreation activities. The team utilized their prototypical prompting question strategies and decision matrix to determine which game challenge tasks to undertake. The team had to weigh several factors such as feasibility and points earned verses the time that it takes for the robot to complete the task. Team B competed with their robot in three rounds; and as the sponsor indicated "ended up in the middle of the pack" in terms of highest match score. A key learning outcome was that the team determined that more time and experience building and programming LEGO robots during club meetings would likely result in an improved performance. This strategy resulted in greater success in year two.

Team C Research Solution and Robotic Design. Team C also followed a similar research and design processes as the two prior examples. After team deliberations, they decided to create a mobility device for senior citizens for standing from a seated position. As a result of their research, they designed a device similar to the two-wheeled Segway, by adding a steering wheel for maneuvering. This team interviewed relatives, investigated assisted living centers, and researched types of powered wheelchairs. Based on the overall performance, this team almost qualified for the local championship tournament. Team C reflected on the challenges experienced at the tournament realizing that not all of them had fully engaged in the research and design process, thereby affecting their robot programming and presentation. Consequently, the team rededicated themselves to invest more effort to compete in a subsequent robotics competition. This time, the team tied for first place in an underwater robotics competition. The support structures provided by the sponsors and mentors facilitated the protégés resolve to engage in teamwork and adopt a stronger work ethic.

In sum, these three cases provide a holistic view of clubs as communities of practice in which adults guide and facilitate learning through an inquiry dialogic approach. As a result, protégés acquire STEM knowledge, programming and building skills, and self-efficacy. We also note the importance of peer guidance to achieve these same outcomes. Incorporating team-building activities within the community of practice was instrumental in ensuring that the students built on each other's strengths and worked as a team. In the subsequent section, we engage in a thematic analysis of what occurs within the community of practice.

Thematic Analysis

As evident in these cases, the community of practice is the overarching support and organizational structure. This theme is exemplified by Pedro, a Latino, 5th grader, "We get together as a family, since we're a big group, we get together and help each other out, and well we're just like a family, but we help [build] robots." Lave and Wegner (1991) suggest that learning occurs within a group who share a common interest, actively engage in dialogue, and participate in the co-construction of knowledge. The community of practice also allows participants to appraise other group members in a different light, as Enrique, a 5th grade Latino, reflects:

> I've learned that working with people you don't really talk to a lot, it's really fun because you get to know them better and you know that they're pretty cool and are able to do a lot of stuff you didn't think that they were able to do. It's just fun working with them 'cause they're nice.

Similarly Ms. Sanchez, a teacher club sponsor, acknowledges the potential and strengths learners display as a result of their participation in informal learning:

> As a teacher, it's really great for me to work with these kids after school in sort of a less structured environment, because I've really gotten to see their personalities develop and see them work on things that they don't get to work on during the day umm and I've enjoyed that. I think that having the extracurricular part of my day has actually helped *me* find more joy in my work, because I get to see these kids in such a different context, which has been really cool, and it's also gotten me really excited to see what's going to happen next year.

To gain a greater understanding of the learning that is occurring within the community of practice, we must move from the macro-lens to a micro-lens as contemplated by Engeström (2001):

> For situated learning theory (Lave/Wenger 1991), motivation to learn stems from participation in culturally valued collaborative practices in which something useful is produced. This seems a satisfactory starting point when we look at novices gradually gaining competence in relatively stable practices. However, motivation for risky expansive learning processes associated with major transformations in activity systems is not well explained by mere participation and gradual acquisition of mastery (p. 141–142).

Using a micro-lens, the following themes emerged: aspiration, efficacy, and expansive learning. These micro-themes capture the essence of collaborative community based informal learning.

Aspiration

There are several sources that influence young learners', ages 10–13, career aspirations. These sources and degree (%) of influence include family and close family friends (47%), interest garnered through informal learning (33%), formal school activities (25%), media (18%), and perceived income status (7%) (ASPIRES 2013, p. 7). As we can note, family, acquaintances, and/or informal learning experiences are the major source (80%) of young learners' aspirations. Given the underrepresentation of ethnic minority professionals in the STEM fields, often minority and other low-income learners do not have access to STEM role models within their family, acquaintances, or minority teachers (Amos/Jani 2007). We contend that providing an informal learning opportunity, such as the LCM Robotics Clubs can augment their

interest as we have observed in reviewing the transcripts. We noted that there were different types of aspirations: immediate, intermediate, and long term. For some participants, engaging in the robotics club stirred their motivation to remain in school. Jonathan, an African American 8th grader, reveals, "Being in robotics has helped me because I was going to leave the school, but since I'm in it they let me stay." For others, participating in the LCM Robotics Clubs affirms their desires and interests to go to college. Nick, a Latino, Biochemistry Major in his junior year, reports, "Many [participants] shared their interest in going to UTSA after graduation, which also was a victory to me! To have them start thinking about [college] at a young age gives them a goal to complete their high school career successfully." Long-term STEM career aspirations are evident in both elementary and middle school protégés. Darious, a 7th grader, declares, "I want to become an engineer now that I've done this, and seeing what engineers do, and how much fun they have while working." Xochilt, a bilingual Latina 5th grader, also expresses an interest in STEM:

> I want to be a technology teacher. I want to teach kids how to make stuff. How to, not [just] like buy it when it's all done. I want them to figure out the stuff by themselves, like to go into a program and make it yourself and all that. Not to just go, press, install it and that's it.

We also noted that undergraduate mentors were also driven by immediate and long-term aspirations. In the case of some mentors, they aspire to be role models and to be change agents. Jamiah, an African American, Mechanical Engineering sophomore, discloses, "I feel giving back to the community of San Antonio is very important so the kids can learn that they too can overcome obstacles in the robotics program as well as their educational career." While Stephanie, a Latina, Math/Science senior, seeking middle level teacher certification, expresses:

> I joined the robotics mentoring program because I wanted to motivate the students at the elementary level to pursue challenging obstacles. I am joyfully committed to transforming the future of education and helping every student to succeed in the STEM fields.

The mutual reciprocal benefits for the young learners and mentors alike is evident in Pearl's, an Asian female, Mechanical Engineering sophomore, reflection:

> I'm loving this robotics club! It's great being able to work with kids and seeing that this could potentially shape their path for their own future. And it's also shaping mine and making a big impact on my life. As an engineer major, I still am not sure what exactly I want to do with that when it comes to my career, but because of this opportunity, I am really considering in combining engineering and kids somehow. I don't really want to be a teacher per say, but I would love for kids to be involved in my job.

Within the community of learners, schooling and career aspirations emerged and are affirmed, thereby, assisting participants with their STEM professional identity and career development. Whereas aspirations reveal how an individual perceives their future selves and direction, efficacy helps us understand learners' beliefs about their capacity to accomplish tasks and goals.

Efficacy

The LCM Robotics Clubs as a community of practice provides opportunities to support learners' self-efficacy development. Bandura (1993) indicates that there are four sources mediating the development of self-efficacy: mastery, vicarious (learning by

observing others), verbal persuasion, and physiological states. In observing the community of practice in action, we noted how participants learn vicariously from each other through observation and demonstration when designing and building the robots. Verbal persuasion was evident when the mentors would encourage the learners to try different solutions or provoke their thinking through questions such as "what else can you try?" "Is there another way to make your robot work?" The robotics club as a community of practice is situated within a non-threatening environment in which participants engage in joint decision-making and problem solving without stress or fear of reprisal. Mario, a Latino Mechanical Engineering sophomore, reveals:

> I think that it made me more comfortable with people that I do not know. Even though I love working with kids, at times I can become shy and kind of back out into my own little world, but being in those environments, you had to loosen up.

Hence, in the community of practice, the physiological state of the learners is supported and learning is accentuated because it occurs within an authentic contextualized setting. An example of mastery learning is evident in Xochilt's, a bilingual 5th grader, interview:

> It has helped me a lot in my [classes] like in science [and] math 'cause well in the robotics club it makes you measure and do the volume of things and all that stuff, so in math it helps me do the measurements of the rotations or something like that, and then science it helps me [with] the curve terms [geometry] and all of that, so it actually does help me a lot in math and science to understand it better.

Similarly for Daniela, a math-science major seeking middle level teacher certification indicates, "It was an amazing learning experience for both me and the students. It made me sure about my future profession as a teacher. I feel more comfortable with the kids and it has boosted my teaching confidence." One of the aims of the Academy for Teacher Excellence is to prepare teacher candidates to be able to work with ethnically and linguistically diverse students to promote candidates attainment of cultural teaching efficacy (Flores/Vásquez/Clark 2014; Yuen/Ek/Rodriguez 2013). In the case of the teacher candidates, the experience not only supports their self- and cultural teaching efficacy, but it allows them to see the capacity of learners. Steven, a math/science major seeking middle level (grades 4–8) teacher certification comments:

> I felt that being a mentor for the robotics club has opened up my eyes to possibilities of success in my students. I am proud to say that I can be part of this journey with them as they continue to challenge their education and face obstacles.

The opportunities to engage in informal learning through the robotics clubs boost the self-efficacy of all participants, with mastery learning experiences being the most powerful and transformative. As a result, the joint authentic and active learning expands the learners' thinking, confidence, and capacity.

Expansive learning

Engeström and Sannino (2010) indicate that learning occurs as learners construct and implement "radically new, wider, and more complex object and concept for their activity" (p. 2). Robotics clubs, as expansive learning in a community of practice,

allow learners to experience problem solving in authentic real-world challenges in designing and constructing robots with others. In the following excerpt, we also note in Emilio's, a 5th grader, reflection that solutions to a problem take time and patience and do not come easily:

> Robotics has helped me because I've learned how to have more patience and put things together and it's been really fun actually too, because all the things we are doing has to do with building and separating [organizing materials]. And on the computer, I like programming a lot and it's taught me how to do that [programing], like we are doing other projects and its taught me how to do it with the computers and other projects.

In learning with others, Emilio's knowledge is expanded while his efficacy as a learner is strengthened. This type of discovery learning is in contrast to the traditional problem solving that occurs in schools, in which there is an emphasis on a linear process in attaining a solution. In traditional learning theories, Engeström (2001) posits: "It is a self-evident presupposition that the knowledge or skill to be acquired is itself stable and reasonably well defined" (p. 137). Mrs. Clark's, a teacher club sponsor, reflection eloquently contrasts the traditional learning theory:

> We're able to work with this community and show them different areas of science and technology in a way that is right in their own classroom, so instead of talking about these case studies of you know in worlds they can't imagine, they see exactly what it feels like to struggle with something and also see how they can use their reasoning skills and their science skills to solve a problem, so I think that at our campus it's been a great *window* to a world that's different…

Expansive learning activities, such as robotics clubs, foster protégés' and mentors' creativity, imagination, recursive discovery process, and natural curiosity – inquiry learning. In addition, robotics clubs cultivates the 21st Century skills of problem solving, communication, collaborations, and teamwork in an afterschool environment (Afterschool Alliance 2011). Mr. Elizondo's reflection supports this notion:

> I have seen how working in extracurricular activities helps them [protégés] develop their communication skills. It helps them develop their leadership skills and it helps them work in teams, which is very important. One of the things I have seen in my kids is they have a lot of exposure in problem-solving and they have been able to work together to solve different problems that they encounter during our meetings whether it is building the robot or making it do the task correctly.

Moreover, it also promotes mathematical and scientific knowledge and thinking as Victoria, a bilingual 5th grader, shares:

> It has helped me because there is a lot of math that we do in robotics like measuring how far the robot needs to go or how much the tires rotate and how fast it should go. There is a lot of adding and subtracting.

Thus, as an example of expansive learning, Victoria's acquisition of mathematical and scientific concepts within the robotics club allows her to incorporate this knowledge within the formal classroom experience. As a teacher, Ms. Castillo has been able to witness the transfer of knowledge from the informal setting to the classroom:

> I know that the kids that we've been able to work with this year have been tremendously impacted. From what I've noticed just seeing that science and math as something outside of a multiple choice question, working all year on the same kinds of problems, and seeing like,

"Oh, I have to find the perimeter. I have to *measure* things that are real." I think that's been a really great impact when it comes to math and science and then when it comes to their communication skills and just their confidence.

5 Discussion

The aspirational value of robotics clubs has been well-documented in the literature (Melchior et al. 2005; Nugent et al. 2011). Our research extends these findings by demonstrating the bidirectional benefits of the LCM Robotics Clubs with aspirational gains for both the protégés and the mentors. In these results, we also observed LCM participants and mentors developing self-efficacy towards STEM learning and career goals. The expansive learning view within the constructionist environment supports this observation, contrasting the assumption that learning is unidirectional. While both groups attained self-efficacy, their gains were unique. In the case of the mentors who had a deeper understanding and knowledge of the STEM concepts, they developed self-efficacy in relationship to career goals and community engagement activities. Specifically, teacher candidates' cultural teaching efficacy is enhanced through these experiences. The club participants, as protégés, experienced opportunities to enhance career aspirations, self-efficacy, and STEM content knowledge. This mutually beneficial learning environment is created within a community of practice approach situated in the broader context of authentic learning challenges. The FLL broad themes with a balanced approach to robot design and the authentic community research challenge, accentuate all participants within the community of practice to over-come obstacles, engage in problem-solving, and learn new STEM concepts and related vocabulary. Mrs. Lozano confirms: "It helps the students see what a college student does and they work together. They have academic-rich conversations, which is very important for our students." Moreover, within the community of practice, the club participants' efficacy is supported in which they feel comfortable and described as a family – a STEM family engaged in a research challenge. Mr. Rincón, a teacher club sponsor, reflects:

> The students have been impacted as a result of participating in the robotics club. They have learned how to work as teams. They have learned how to depend on each other's strengths. Some kids are very good at building the robot; other kids are very good at programming the robot. And working as a team has helped them develop those skills.

Likewise, mentors' sense of efficacy is accentuated when they feel at ease serving as facilitators within the community of practice. Collectively, these experiences promote all participants' achievement at higher levels of performance in all aspects of the tournament experience.

6 Conclusions

In conclusion, the use of robotics clubs within a community of practice supported by the LCM model has aspirational and self-efficacy impacts on all members of the

learning environment. Protégés and mentors experience a variety of gains in STEM knowledge and understanding as well as affirmation towards STEM career goals. To scaffold protégés' acquisition of STEM vocabulary, we recommend interactive journaling in which mentors review and respond to journal entries. Mentors would serve in a similar role as *EL Maga* – a magical virtual entity in LCM, which has been very successful across sites (Arreguín-Anderson/Kennedy 2014; Vasquez 2003; Yuen/Ek/Schuetze 2013; Yuen/Ek/Rodriguez 2013). Another recommendation is to collaboratively engage protégés, mentors, teachers/sponsors and university faculty in participatory action research. Moreover, to ensure the LCM Robotics Clubs sustainability, we recommend for teachers/club sponsors and site administrators to engage in seeking external funding from the school districts' educational foundations and other external funding from the private sector. We suggest that these activities would promote expansive and transformative learning that results in the betterment of STEM educational opportunities and access.

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The Shere Rom Project: Looking for Alternatives to the Educational Exclusion of Roma[1]

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Abstract: School failure and early school dropout particularly affect members of certain minority groups such as the gypsy[2] population. The obstacles that must be overcome for the members of these groups appear to be related to the discontinuities between the values and goals of community family life and those of the school. This article presents an analysis of obstacles based on the perception of gypsy families and other minority groups who don't have the same difficulties. The findings of this study help to analyze and understand the characteristics that promote the inclusion through extended education communities based on the Fifth Dimension model within the framework of a project developed in Barcelona with the gypsy and immigrant population.

Keywords: Intercultural education, communities of practice, Roma education, extended education, educational inclusion

1 Introduction

The Shere Rom project was born in 1998 with the aim of creating a learning space free of the constrictions of formal education and oriented toward the educational inclusion of the gypsy population that had indices of absenteeism, early dropout and failure rates much higher than those of any other social group in Spain, as immigrants. Fifteen years later, the project has grown and further developed in various parts of the metropolitan area of Barcelona, first as community educational practices outside of school focusing on the advancement of members of gypsy communities, and later within schools with high levels of cultural diversity among students and in environments characterized by the risk of social exclusion. Realizing the project within schools was only possible after having developed tools and procedures in

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2 We use the term Roma when talking about Roma Community and Gypsy when referring to the Spanish roma community due they refer to themself with that term.

educational outreach communities, free from the constraints of the scholastic institution. Its appropriation by the school involves the transformation of formal educational practices, moving from a classic model of transmission to another based on collaboration (Rogoff/Matusov/White 1996). In this article we analyze the key factors in the continuity of the project over 15 years using the conceptual tools of cultural psychology.

2 Gypsies and Formal Education

In modern societies, formal education has become the main tool for social cohesion, essential for the maintenance of the social status of the middle class, the upward mobility of members of lower classes, and social inclusion of children of immigrant families and minority groups. The education administrations of democratic states have been oriented to ensure full enrollment of children and adolescents in schools making absenteeism, early dropout and failure rates system problems that should be corrected.

Compensatory strategies and the formulation of the multicultural school are part of this policy of error correction in schooling aimed at ensuring equal opportunities for children of immigrant families or national ethnic minorities. However, belonging to some of these groups today is related with a series of handicaps for obtaining basic educational levels, and even more, for access to higher education (see discussion on the results of PISA in Brüggemann/Bloem 2013; and Ferrer/Valiente/Castel 2008).

The range of resources allocated by education administrations to combat the difficulties presented for immigrant students has focused mainly on addressing the barriers caused by language differences. Thus, compensatory education programs or reception classrooms are primarily oriented to learning the language of instruction of the school. Several studies (Cummins 1981; Hakuta/Butler/Witt 2000; Thomas/Collier 1997; Vila et al. 2008) have shown that while the manner and pace of acquisition of the language of instruction is a fundamental factor for school inclusion, language is not the only or even the main factor that explains the differences between groups given that there is no correlation between the distance between the home language and school language on the one hand, and school success on the other. This is the case in the United States, where the levels of excellence achieved by a high percentage of members of the Chinese community are in contrast to the low average achievement of some Anglophone group members such as African Americans. It is also the case in Spain, where the academic success of children of Slavic origin is contrasted with the very low expectations of success of Spanish or Catalan-speaking members of the gypsy population.

The ethnic group in Europe that presents the most difficulty for educational inclusion is the Roma, a group that experiences a situation of enormous inequality in terms of access to formal education. In Spain, whereas within the general population illiteracy is almost nonexistent at 2%, among the gypsy population the rate reaches 13%, and if we add people with no formal education, the rate reaches 30.6%, whereas the percentage for the general population is close to 8%. Furthermore, while in the overall population, the percentage of people that have only reached the level of

primary education is 36%, among the gypsy population the percentage reaches 76%. As shown in table 1, access to studies beyond compulsory secondary education is marginal (Laparra 2011).

Table 1. Comparison of education level in Roma and general population, 2006

	Roma population			General population		
	Men	Women	TOTAL	Men	Women	TOTAL
Illiterate	10.1%	18.6%	14.5%	1.4%	3.0%	2.2%
No studies	33.2%	28,8%	30.6%	8.4	10.9%	9.7%
Primary	29.8%	32.5%	31.2%	23.8	24.5%	24.1%
Secondary (1st step)	25.2%	19.4%	22.2%	23.8	20.5%	22.1%
Secondary (2nd step)	1.4%	1.3%	19.8%	19.8	19.2%	19.5%
Higher education	0.3%	0.2%	22.8%	22.8	21.9%	22.3%

Source: Sociological Research Center's 2007 in gypsy houshold (Laparra 2011)

There is a clear generational progress, and in 2006, while in the group over 65 years of age had levels of illiteracy reaching 55.2% and only 9.6% having completed primary education, in the group of 16 to 24 year-olds, the percentages are reversed, with a 2.4% illiteracy rate and 78.6% having completed primary studies or more.

However, of the 92.5% of gypsy children in school at age 12 (the age corresponding to the last year of primary school), only 60% of those children are in the course that corresponds to their rightful age when the levels of the general population are at 84.2%.

The secondary education data is significantly worse. Among young gypsies 13 to 15 years old there is a 21.9% drop out rate (while the rate is at 2.5% for the general population) and the differences between the sexes are very pronounced: in girls dropping out is almost double that of boys. When age 16 is reached, 53.1% of gypsy youth are not in school and have gone only as far as the primary educational level. That is, more than half of the boys and girls from the gypsy population did not enter secondary education or dropped out without meeting its objectives.

Thus, the school, as institution, presents special difficulties for the inclusion of gypsy students, who are not comparable with other cultural minority groups becoming from immigration. These groups face some difficulties related with the migration process in the new cultural environment, or with the learning of a new language to attend school. There are conflicting values between school and families in African, Asian and Latino American families, but we have never found such oppositional positions as with roma families.

The difficulties of schools in integrating gypsy students, comparable in all European countries (Rus/Zatreanu 2009), are diverse and are situated in the objective living conditions of the gypsy communities, in the educational history of the families of that community, and in the discontinuities between these families' values and those of the school. The education system should question itself specifically on the structural elements of schools that cause them to fail in the inclusion of gypsy students.

3 An Interpretation From a Cultural-Historical Perspective

Why does the school function in such an unsatisfactory way with certain minority groups? This question cannot be epistemologically neutral. From a cultural-historical perspective we understand development and education as the participation in sociocultural practices that promotes the appropriation of artifacts required to form an active part of the community:

"… first, in that thinking and learning are considered functional efforts made by individuals to solve problems of importance to their culture; secondly, because it is accepted that the direction of development varies according to the goals, rather than there existing a universal end to which all development should be directed. Hence, to understand cognitive development, it is necessary to take into account the particular problems that children try to solve and their significance within the culture" (Rogoff 1990, pp. 155–156).

From this cultural-historical perspective emerge such questions as: Is the school practice a meaningful sociocultural scenario for gypsy students? Do its practices make sense to the gypsy population? Are the school's goals identifiable and shared? And how are school practices incorporated into the identity of gypsy students? Guided by these questions, the ethnographic work in schools prior to the project (Crespo/Pallí/Lalueza 2002; Lalueza/Crespo 1996; Lalueza et al. 2001) allows us to identify three areas in which schools have difficulty in the inclusion of gypsy students: a) acquisition of cultural tools that allow for participation in the institutional practices of the school; b) appropriation of the motives that give meaning to the participation in school practices and their incorporation in the students' identity; and c) constructing narratives for sharing meanings and establishing common goals.

Failure in the Acquisition of Cultural Tools

The basic skills (reading, math, science) acquired in school are artifacts that mediate our relationship with the environment. Their acquisition allows us to participate in social practices and, therefore, form part of the reference community. Thus, failure in their acquisition hinders social inclusion.

Mediating artifacts embody cultural heritage in that they are an "aspect of the material world that has changed during the history of their incorporation into goal-directed human action" (Cole 1996, p. 113). Artifacts transform the environment in which human beings live, but also transform humans by defining their activity. When a child participates in a goal-oriented activity, he or she appropriates the cultural heritage embodied in the artifacts.

The historical emergence of reading and writing was a revolutionary form of mediation to which Vygotsky and Luria gave great importance in the explanation of the mental functioning of the modern subject. Michael Cole (Laboratory of Comparative Human Cognition 1983), in referring to the latter states that it is not just the acquisition of writing that causes mental changes that are attributed to literacy, but also the characteristics of the activity in which the acquisition occurs, and the practices that are incorporated within that activity. As important as learning to read is the process of how one learns, in what context and for what purposes. This can be seen in the practices of the Vai of Liberia, among which there are three forms of access to

literacy, each in a different institutional setting: the school, where one learns English through texts and problems; the mosque, where one learns Arabic in group recitation of prayer; and the family environment, where one learns to write the Vai script used only to write letters to acquaintances. Each acquisition context is itself an artifact mediator that stimulates different cognitive processes.

Regarding schools, the key issue here is the process of appropriation of artifacts by students: not only with primary artifacts (writing, language appropriated to describe the objects of knowledge, etc.), but with the secondary as well (scripts, appropriated forms of action for each activity, addressing others, etc.). The appropriation of school activity involves knowledge of its goals and standards, and of the terms that guide the conduct of its members.

In the case of gypsy students and other minority groups, failure in the acquisition of primary artifacts (core competencies) cannot be separated from the non-appropriation of secondary artifacts in the form of routines, rituals and uses of language, the set of daily practices whose appropriation is needed to make sense of the school experience. An educational alternative would be an institutional framework that promotes appropriation's practices of cultural artifacts, but such practices should also be appropriated (in the sense of being taken as one's own) by the participants.

Failure in the Appropriation of Motives to Participate in School Practices

Research on cultural discontinuities shows that traditional cultural practices of the communities that children are a part of and the practices derived from participation in the school and its rules can be contradictory (Greenfield/Cocking 1994; Greenfield/Suzuki 2001; Poveda 2001). Hedegaard (2005) adds that this conflict mediates the acquisition of skills, competencies, construction of motives, and in the identity of the child.

Progress in education, understood as the acquisition of skills through school practices, cannot exist outside the motives of the child or the orientation of his or her goal-directed activity and the meaning that is given to it. As Hedegaard suggests, "through shared activities motivated by social practices at home and school, the child learns to combine needs with objects, and then acquires new motives" (2005, p. 193). In other words, there is no progress in schooling (in the appropriation of the practices of that institution) in the absence of motives (goal orientation), because without them the activity is meaningless. Shared motives, engaging in goal-directed activity, is what gives meaning to the subject and is essential for the active participation (not just peripheral, in the terms of Wenger 1998) that is necessary for development.

Motives are a fundamental aspect in the process of identity construction. Children's identities are transformed as they participate in different practices and become members of new institutions. Only through active participation (goal-oriented, with meaning) can schooling be incorporated in the identities of its members. Conversely, when the school practice is peripheral, resistance phenomena appear as well as ethnic differentiation processes by which identity is constructed outside of or in opposition to the school, as Ogbu (1994) indicated in reference to the secondary cultural traits of African Americans, and as also occurs in the Spanish context with groups of

gypsy students (Fernández-Enguita 2004; Fernández-Enguita/Mena/Riviere 2010), but not with other minority groups such as Latino immigrants.

In short, if we think like Hedegaard that "the development of children can be understood as the appropriation of competence and motives to manage daily practices within different institutions, and also to build a sense of who they are and who they want to be in the future" (op. cit. p. 188), the challenge of the school lies in its ability to provide a meaningful activity, setting goals shared by the participants, who in turn incorporate this practice in their identities.

If the school fails to provide meaningful practices for gypsy students, an educational alternative needs to be offered, to make the objectives of its daily practices intelligible and promote their incorporation as motives for the participants. This intelligibility involves establishing narratives for sharing goals and incorporating the participation in the educational institution in the identity of gypsy students (Crespo et al. 2012).

Failure in Establishing Shared Narratives

Every culture has a set of narratives that "objectify" reality (Moghadam 2003), a common way of understanding the world, a shared definition of reality that includes values, hierarchy, priorities, belongings, ways of interpreting the past, desirable goals, etc. On top of this objectified world, intersubjective agreements are established that enable communication and joint activity. Belonging to a cultural community involves the sharing of terms, the ways of categorizing reality that need not be explained because they are taken as a given. Schweder (1984) refers to them as preconceived, unspoken ideas that each cultural community establishes as the basis for understanding.

Understanding the goals of an activity is possible as long as you share a story with the other members of the community (Bruner 1996). To participate in an institution (family, school, work) is to share the stories that indicate and justify the goals of the activity of said institution. Ecological transitions that occur when entering a new scenario are carried out without much difficulty if one maintains the intersubjective agreement about reality. The entry into school of a child from a dominant cultural group is facilitated by the narratives of this institution that share the same referents used by the family, this forms part of a basic agreement on what we are doing together. However, when members of an ethnic minority group with little power in the dominant society attend school, they encounter a world where the rules, language, relationships and objectives of the activity are different from or may even contradict those of their family and cultural group. Although schools generate narratives of all kinds, the ones that are especially relevant are those oriented toward the future; practices are justified not in their immediate usefulness, but for their contribution to a student's progress. This idea of progress does not correspond with the views of some cultures such as the gypsy population, and this makes the joint construction of community and family discourses with those of the school difficult. Consequently, the peripheral participation of students from these ethnic groups tends to be supported by narratives of the present and immediate future (Lalueza et al. 2001). Furthermore, the narrative of the school often excludes other narratives that are foreign to the mainstream institution, viewing those narratives as interference (Moll et al. 1992;

Poveda 2001). When narratives are not shared, alternative stories emerge, usually constructed in opposition to the dominant narrative, such as the refusal to use the language considered correct by the school, or reluctance to adopt the behaviors of the good student. This is what, according to Ogbu (1994), stimulates the development of secondary cultural differences – identity characteristics built in opposition to the dominant culture (Lalueza 2012).

It is not an immutable fate. Despite cultural differences, some groups as Latin American immigrant arrive to basic agreement with schools based in sharing conceptions about desirable futures for their children: converging the goals of the immigration (social inclusion and prosperity) and the goals of school (social cohesion around dominant values and rationalist development of their pupils).

Thus, the key issue for intercultural education is how the school, an institution that helps define reality according to the dominant culture, can create spaces of intersubjectivity with members of minority groups that support objectifications of the world that differ or are even in opposition to their own. The failure to establish a shared microculture whose meanings are meaningful to all members explains the disaffection on the part of those who do not understand, share or appropriate the narratives that give meaning to school practice.

According to the approach we have developed thus far, we will present in this paper two sections: One, an empirical study based on parents voices about school; Two, an extension of this analysis about the specific alternative developed by the Shere Rom Project. Both sections will be articulated around the three points developed above. They become the research questions of the empirical study and the guide for the analysis of the experience of the Shere Rom project.

Section 1: A Study Based on the Perspective of Families

Method

The study presented here aims to analyze the voice of gypsy families (FG), through 9 interviews with parents of children that attend school (6–13 years old). They live in various districts of Barcelona and its metropolitan area.

According to previously presented differences between minorities in their relationship with school, and with the aim to recognize the specific characteristic of Gypsies as minority, we introduced similar interviews with the same number of Latino immigrant families (FL) living in the same neighborhoods. While our goal is to study the discontinuities between the gypsy families and the school, that may account for the difficulties of this institution regarding integration of this ethnic group members, we have also incorporated Latino immigrant families, a group that is not a part of the social majority, but does not present the same problems of school integration as the gypsy population. Both cultural groups share the characteristic of minority groups whose first language, Spanish, is not that different from the school's principal language, Catalan (a Romance language that shares much of its grammatical structures with Spanish), nor from the language of the majority cultural group. In our study all families are Spanish speakers except two gypsy families whose first language is Catalan. Furthermore, all Latino families, from seven nationalities (Argentina, Bolivia, Colombia, Ecuador, Perú, República Dominicana and Venezuela)

have been settled in Barcelona for at least 3 years. A total of 18 interviews were analyzed, 9 families from each cultural group.

The script of the interviews was developed from the content of four previous focus groups. One group was held with 7 experts about the gypsy community and another with 5 experts in Latin American immigration. Both focus groups were composed by researchers and largely experienced practitioners. These focus groups were asked to explore the particular conflicts and difficulties of the correspondent cultural group in the Catalan schools. The analysis of the contents of those groups allowed us to do a list of topics that were the script of the third and fourth focus groups, that were conducted with *mediators* from each community (6 *gypsies* and 5 *latinos*). *Mediators* are practitioners who belong to the cultural groups and who work to promote the relationship between families of their own community and schools. Out of these four groups the final script for the interviews to be conducted with families of both cultural groups emerged.

Finally, *mediators*, participants in the two focus groups, became families' interviewers and they selected two or three families from their own community (each mediator selected families considered *collaborative* with school and families considered *distanced* from school). The research team trained them to do interviews with the script developed from the focus groups contents. Families had children of school-going age, and were interviewed (mother, father or both) at families' homes.

In the present research we followed the methodology of content analysis: transcription of the interviews, quotes segmentation, coding, triangulation of the coding realized by the different researchers, and coding of all interviews with the category system thus obtained. The work was supported by Atlas.ti 6.2 software. A set of primary categories emerged directly from data (following the Grounded Theory procedure of Glaser/Strauss 1967).

Here we will not develop the full analysis that led to the group of primary categories that is still in progress. We will focus on the identification of parts of the transcripts that contain content on the argumentation that families use about the schooling of members of their community in accordance with the interpretation of the historical-cultural perspective developed in the previous sections of this article. To do this, primary categories included all quotes extracted to the text of each interview. The information gathered in these primary categories was read in a second turn, and the quotes gathered in three macro-categories.

4 Analysis[3]

In the study presented here, we will interpret data from a previously developed theoretical model that will help us to understand what it is that gypsy families perceive: a) if the school promotes skills acquisition and appropriation of tools to participate

3 Transcription conventions:
IntL/IntG: Latino interviewer/Gypsy interviewer.
ML/MG: Latino mother/Gypsy mother.
FL/FG: Latino father/Gypsy father
The letter joined to the actor is the neighborhood where the interview is conducted. Moreover, the number shows if it is the first, second or third interview conducted in a neighborhood.

in the practices of that institution; b) if the school promotes appropriation of motives that give meaning to the participation in school practices; and c) if the school facilitates the construction of narratives for sharing meanings and establishing common goals.

a) On the Acquisition of Cultural Tools

The quote transcribed below reflects the sustained perception often expressed by Latino families (hereafter FL), that the school is organized for the gradual inclusion of children coming from immigration backgrounds.

FL_A_1: =so, once he was there he was integrating, integrating integrating, so that:: then they put him in these classes that::, that help more with Catalan:: =
IntL_A_1: =there in the same, in the school=
FL_A_1: =in the school, [in::]
IntL_A_1: [Ah], in the welcome classroom=
FL_A_1: =Exactly, but he was taken out not last year, but now, now, they put him the same as the others, now they don't give it anymore =
IntL_A_1: =ah, so it's like that was the time when he went to those type of reinforcement classes, [there::]
FL_A_1: [exactly]
IntL_A_1: Ok,Ok, [and after that::]
FL_A_1: [he told me] that they had separated him, that::, for almost a year they separated him, he said, he said better. So its like, he says that maybe now:: (---), I don't know, better, but::, you::, you go at your::, at your own pace, and not::, and so far::, we don't have any problems.

In contrast, the second quote shows a different perception, often sustained by gypsy families (hereafter FG), who do not detect that the school offers educational resources that focus on cultural diversity, making it difficult to connect with the school and the cultural tools offered there.

IntG_A_2: That they explain, with with=
MG_A_2: =Their way. Then, for example, right?, maybe it will never happen, but if in a class there was, not a teacher, a gypsy, an assistant, you know? And she could be more with our kids, like see, the teacher explains something and the other:: the assistant would say, look kid, you don't do it like this, you do it like that, and that, and that. Son2G_A_2:, you do it this way, this way and this way. Ok? I know my kid would get it better like that, than the teacher explaining it. Because we have a different way of understanding things, even though in the end its the same.

Each quote has a different interpretation of the educational resources that address cultural diversity. In the case of the FL, despite cultural differences with the school, they welcome the resources available to them. By contrast, the FG do not view the educational resources as addressing diversity. The first group appreciates the opportunities for learning the language of instruction of the school, while the latter speaks of the distance between the uses of language in the school and in the community.

The problem is that the attention to diversity in school focuses on language acquisition, but does not address its cultural forms of use, or the acquisition of other

secondary artifacts such as rituals and habits, which are seen by the school as implicitly shared with families, which is not the case of gypsy families.

b) On the Appropriation of Motives for Participating in School Activities

The Latino community links their future expectations with the schooling of their children, valuing that learning at school will help improve one's opportunities.

ML_E_2: I think that education has always been important and now even more, a lot more and in these times of crisis well, a lot more, I think that right now in this crisis that there are a lot of teachers that don't have work, a lot of people are unemployed and no, education is really important, more than before, now, always and I think that every parent wants our children to be prepared, to be good professionals and to have a good future I think that as parents we all think that

In contrast, the FG values acquiring basic skills (reading and writing), and school learning is only seen as a resource for economic activities when the family can't guarantee them by other means.

MG_B_1: = for example my Son2G_B_1 and my Daugther6G_B_1 started at 12 years old, when they were 13 they left, at 14. What did my son learn in two years? he was in the street more than he was in the class. Because it made him nervous, he was the tallest, they threw him out. El Son2G_B_1 because he didn't go, they threw him out, I want them to have opportunities to learn and the day that I'm not here, they don't know how to put in a plug, they don't know how to put in a light bulb, things that you learn in school, when they teach you, but these kids don't ( ) don't want it.

IntG_A_2: If it wasn't required, would we take them?
MG_A_2: No, we would take them less. We would take them less.
IntG_A_2: So it's because we aren't putting any value in the school, right? Because more than a school it's like day care, a place to park them. Because really, I take them because they require me to and they are telling me I have to take them. But really I don't think that they are going to learn anything.
MG_A_2: Well, no, of course! To learn to read and write, and all that I want my kid to learn, all of that, goodness!

MG_A_1: To study, to know, right? To have a:: to know, to know how to act, to talk to people. They won't go anywhere in this place, if they won't go anywhere, they don't need it, right? So, I can offer them things, so it's not that necessary. But that's really not my case. If you can't offer them anything, they have to study. I think that a mother that doesn't have anything to offer, and doesn't motivate her children to study, is not really a good mother. So, first we would have to educate the mothers, so that those mothers can educate their children.

In both cases the opportunities that schools offer for the work future of their children was recognized as a motivation for schooling. However, in the case of the FG, school is not accepted as an educator, as a shaper of identity, but just as providing some tools, in the case that the traditional economy of gypsy communities would not be enough.

c) On the Construction of Shared Narratives

FL seeks the appropriation of cultural tools offered by the school. The assimilation of the majority culture is sought through the participation in school practices.

IntL_E_1: professionals in what sense?
ML_E_1: the idea of having people that are so different, children that are so different, in the cultures that they can (...) like to unify them like, they're different, but they can do that, they can make them feel like how good to be in Spain, in Catalonia, for example with the Catalan, with all of those things and that they treat them like equals. Another thing that::: I like the little trips that they do a lot=

In contrast, FG seeks to maintain their own culture, perceiving the school as a space that threatens the cultural identity of their children.

IntG_D_1: Yes well, the first. Do you think that the gypsies really want their children to study in school?
MG_D_1: I think so. Now, in the times we live in, because there is a crisis, because there is so much fear that the market doesn't work anymore, to sell for scrap has gone downhill, ehh::: and people don't see any way out, so now yes, now I want you to study in school, but, people are afraid, and the fear is that when the boy or girl, especially the girl, starts to become a young woman, now, the school:::, she mixes with people who are not gypsies, and she can::: fall in love with a boy who is not a gypsy, eh:, girls that age should already have a boyfriend, she needs to be learning how to clean, she has to learn how to cook, she has to get married... The boy, well::, if he gets a non-gypsy girl and then brings her home (1). Eh, it's that, now they do things with people who aren't gypsies, they want to go with them everywhere, to the discoteque, to wherever::... Anyway, that we will become non-gypsy and that's what the fear is yes... I think that's what the parents are afraid of [that]

The historical relationship built between families and school influences in the differentiated cultural strategies of relating with the culture of the majority. The FL value positively the incorporation of the cultural tools of the school as there is the expectation that they will offer opportunities for social inclusion and a better future. However, the FG distrust the unequal relationship established between the majority culture and gypsy culture, fearful of losing their culture through the relationship with the majority cultural group and by participating in its institutions. Although some of the tools that the school can provide are valued, there is a fear – historically constructed – of losing one's culture.

While the narratives of the school and of the gypsy community are not only different but are perceived as opposing, it does not appear as viable to build a hybrid cultural identity that can incorporate the cultural tools offered by the school and at the same time maintain the tools and cultural values of the gypsy community.

Section 2: Looking for Alternatives: The Shere Rom Project

In the study presented from interviews with gypsy families and their counterpoint with Latin American families, we sought to incorporate empirical evidence consist-

ent with the formulations of a cultural-historical approach on the reasons for the failure of the inclusion of the gypsy population in schools.

These highlighted difficulties, presented as school failures (not of children or their families), are the obstacles that must be overcome by an inclusive educational project with minority cultures. This is what was intended 16 years ago with an extended education project aimed at overcoming the constraints of the school in relation to gypsy students. The House of Shere Rom was born in 1998 to test a response to the deficient educational inclusion of the gypsy population and the social exclusion that a large part of its members experience. The project's aim was to design a system of activity-based teaching and learning methods that were meaningful. With this goal in mind, an institution was conceived, free of the institutional constraints of the school, which took the form of an extended education program rooted in a gypsy community and that counted on the participation of the community and on the management of the program by the members of that same community. It also used a physical space that was considered as belonging to the community. To do this, we used as models the Fifth Dimension and "La Clase Mágica", communities of extended education developed by the Laboratory of Comparative Human Cognition (LCHC) of the University of California from the principles of CHAT (Cole 1996; Vásquez 2002). Through a process of negotiation with a local gypsy association (Crespo/Pallí/Lalueza 2002; Crespo et al. 2005) we launched a community of educational practices supported by the use of ICT (information and communication technologies) and located in a community association in a district of Barcelona.

Its operation was based on the cooperation between boys and girls of the community (3 to 14 years old) and college students in service learning practices, to perform tasks with content related to basic schooling skills, but presented in the form of games or collaborative problem-solving challenges. This is set in the context of an activity subject to rules, with explicit short and medium-term goals, with artifacts designed specifically for the activity and with a shared language referring to the rules, goals and activities. *Shere Rom was* a fictional character active on the Internet, presented as a magician, present during the activity, responding to children's questions, and inviting them to narrate their experience through his cards.

This is not the place for detailed descriptions of the Fifth Dimension which can be found in many texts (see Cole/The Fifth Dimension Consortium 2006; Nilsson/Nocon 2005) and is part of the background shared by the rest of the articles in this special issue. What we attempt here is to explain *how* this model responds to the three *failures* in school inclusion of gypsies analyzed in the study presented in the previous section.

What started as a local experience 16 years ago, has led to other communities developing similar extended education communities through collaboration with gypsy associations, and has also been introduced as an innovative educational experience in schools characterized by high concentration of minority groups, especially gypsy students. There are currently eight such experiences operating, four as extended education communities outside school hours, three in primary schools and one in a secondary education institute. In all of the cases, the implementation and design are the result of a negotiating process, with representatives of the reference entity (gypsy association, neighborhood entity, school or institute) using an initial model. However, both the negotiating process and, above all, the development of the activity over time, transforms, so that in each of the sites there is an idiosyncratic activity, distinct

from the others, and adapted to the community and institutional characteristics of that particular environment.

Specific data about interactions in this kind of activity is analyzed in Luque/Lalueza (2013) and Lamas/Lalueza (2012). Here we will restrict our comments to illustrate how the Fifth Dimension approach to the three issues developed in the empirical study presented in the previous section, which analyzes the discontinuity between home and school educational practices and reasons for the failure of the school in the inclusion of gypsy students, offers us clues as to why the Shere Rom project works, why absentee children regularly attend extended education activities, why schools embrace a model that assumes an educational practice totally different from their usual practice using different educational agents (researchers, activity coordinators, university students) and that end up transforming their own dynamic, and why absentee characterized children regularly attend these activities that take place in schools. In other words, it offers information on what basis the communities of educational practices inspired by the Fifth Dimension generate school practices that overcome the failures of institutions for certain minority groups.

a) On the Acquisition of Cultural Tools

The Shere Rom project is adaptable to local cultures because there is not a closed curriculum. If it is realized in a non-formal space such as an association or neighborhood entity, the design has to adapt to the constant interactions with the people and groups involved in the other activities, with families of children (incorporating, for example, younger siblings), as well as with the objectives of the association. If it takes place in a school, the design adapts to the characteristics of the group and the interests of teachers and school dynamics, but it also takes into account the social context, the neighborhood characteristics, and the cultural framework of the community the families and students belong to. It entails, therefore, the explicit consideration of the cultures that converge in the classroom.

Local cultures and mainstream academic culture can be accommodated in a socially productive learning environment. Meaning is not imposed, but a space is created where different interests and motivations can find their place of encounter. First, everyone is "at the border" with their own goals, achievable through joint action: for children there is playing, solving a mystery or expressing their skills; for teachers there is the development of certain student skills; for students there is learning about development and education through practice; and for the active members of the association there is the empowerment of their community through practices that involve the acquisition of new skills and knowledge. As the various artifacts of the activity are appropriated by all the participants, a micro-culture comes to take shape from which shared meaning and goals emerge. When this happens, it means participants have appropriated the model and have made it theirs. Furthermore, development of the program can be managed by them.

b) On the Appropriation of Motives for Participating in the Activity

The relationship between the participants in all communities that follow the Fifth Dimension model is based on collaboration, and the recognition of competence and decision-making. This collaborative learning philosophy is reflected in the structure

of the activity which allows for different paths to be taken depending on the motivations, and on the relationships between learners and experts (or between different learners) that have to agree on how to realize the tasks.

Collaborative work in Shere Rom project promotes the construction of a micro-culture in which adults and children cooperate in the creation of a shared project. This micro-culture creates an interagency space (university, school, social organizations), an intergenerational space (adult professionals, young students and children), and an intercultural space (various institutional, generational and community cultures) where different voices are expressed and where power relationships related to age, gender or cultural background are diluted, generating work dynamics where norms and roles can be negotiated at any time. The adult figure as partner, not as an evaluator of the child, helps to create strong emotional ties that promote the learning process, as well as stimulating greater involvement of everyone in that same process.

c) On the Construction of Shared Narratives

The incorporation of a narrative helps to integrate different tools into a goal-directed and meaningful activity. In the Fifth Dimension model, the activity is presented to children as a story in which one or more characters have a past, present a set of meaningful actions, maintain an ongoing relationship with the participants, and help create a common story shared with a sense of complicity.

The activity is a narrative whole that can be explained in the language of the participants because it has an explicit approach with established rules; it is oriented toward an outcome that can be both the arrival to the end of a path as well as a product that is created and presented collectively. The magician plays an important role in creating this narrative. It is a living character that traces the history of the group, keeping memory alive and encouraging the challenge of future projects.

Authorship, a discourse consciously directed at an audience, is a fundamental element in the construction of meaning, as well as an entry into the meanings of a culture (Bakthin 1986; Wertsch 1991). The Shere Rom project aims to promote "agentivity" – encouraging competence and awareness among participants so that they can guide their own learning activity through authorship and conscious representation of the audience. In the activity we call *Trovadores* (a storytelling activity, where participants organized in small groups develop short narratives with digital media), boys and girls become agents throughout the process – the decision of what they want to explain is theirs and the review of the quality or adequacy of the work is also theirs. It is they who set the pace, make decisions, reflect, create and act. They take an active role in the dialogue with the spectator and tell their stories from a privileged position, with their own voice. This offers, from the very beginning, the possibility of seeing oneself from another perspective, as authors and participants.

5 Conclusions

The Shere Rom project is not intended to act as an alternative to schools, but as a project transforming educative practices in teachers and organization. Its design

stems from the analysis of the limitations of schools and has been developed in extended education spaces. The experience has stimulated a return to the schools with a proposal of change, attending to the results presented in this paper. Whether realized outside or inside of schools, the key has been to create interagency relationship spaces where the activity makes sense for each entity. This occurs when the legitimate objectives of each entity are incorporated be it an association, a school or a university. As an intergenerational space it should be motivating for the different participants: children, teachers, community agents and students. As an intercultural space it must generate narratives that can be used in different social languages and they must be meaningful to the different communities involved. This is only possible if we view educational intervention as a constant process of negotiation.

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"Real Learning" in Service Learning: Lessons from La Clase Mágica in the US and Spain[1]

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Abstract: In this article, we present initial findings of an exploratory-pilot research study that focuses on *service learning* as a framework to examine "real learning" and identity changes of university students participating in a community based educational activity known as *La Clase Mágica.* Student's reports and fieldnotes from two distinct locations: the original 25-year old project located in San Diego, California and a recent adaptation in Seville known as LCM-Seville, now completing two academic years of experience. The two programs in San Diego (US) and Seville (Spain) illustrate the types of learning that students acquire as they engage community members in activities that support community participants' development:

Keywords: service learning, real learning, narrative inquiry, diversity, higher education

1 Introduction

In the context of global trends in education, the university is in an ideal position to meet the needs of both students and society. We concur with the United Nations Environmental Program (UNEP) Greening Universities Toolkit's (2013) appraisal of the university as an "agent(s) of change, catalyst for social and political action as well as centers for learning" (p. 4). It has the mission and the resources to prepare future leaders to meet the demands of the complex and diverse social realities of the 21st century – i.e., that is, to create the conditions that guide and support the development of well-informed, responsible human beings (Maturana/Nisis 2002). To fulfill this mission, not only must it prepare future leaders for economic gain but it must also provide them with opportunities to develop a social consciousness and real sense of citizenship (Euscátegui/Pino/Rojas 2006) to meet the demands of an ever-evolving world society. In this paper we argue that the university can accomplish this role by engaging students in the real problems of society in ways that they can learn from real experiences in real places, with real people who are undergoing specific realities and developing different personal and cultural perspectives (Euscátegui/

1 The authors would like to thank Charles Underwood, Executive Director of UC Links (http://uclinks.berkeley.edu), for his thoughtful comments and guidance in developing both the projects and this article.

Pino/Rojas 2006; Blázquez/Martínez-Lozano 2012). The introduction of service learning in higher education provides an excellent example of combining learning of academic concepts with communitarian service (Eyler/Giles 1999; Knapp/Fisher/Levesque-Bristol 2010), and in these times of continuous change, it can serve as an ideal strategy for preparing future generations of leaders for the complex and diverse world that awaits them.

In this article, we provide empirical insights into the ways that the intellectual, social and emotional development of university students is reinforced by their participation in service learning activities at *La Clase Mágica* (LCM)*,* an informal educational activity situated in community-based institutions supported by a university research team and a practicum course (Vásquez 2003, 2008; Vásquez/Bustos/Riojas 2014) and UC Links, a consortium of university-community partnerships established to provide a mechanism for maintaining the diversity of the student population at the University of California (http://uclinks.berkeley.edu/) (Underwood/Parker 2011). We focus on two iterations of *La Clase Mágica* as a "cultural laboratory" for the study of learning and development: 1) *La Clase Mágica, Seville,* situated in a gypsy community where women seek social and academic skills to help them achieve self-sufficiency and University Pablo de Olavide students put into practice service, academic, social, and citizenship skills; both women and undergraduates come together in a community center offering multiple social services for the women and where the university students assist as part of the requirement of a practicum course in Learning Processes in Non Formal Settings. 2) The original iteration of *La Clase Mágica* in Southern California where undergraduate students enrolled in a specially designed Practicum in Child Development offered at the University of California, San Diego conduct their research at four afterschool educational activities situated in three Mexican origin communities and a Native American reservation. In both cases, undergraduate students work closely with community members to meet the social and educational needs of both constituencies – the community requiring educational resources and institutional support (Stanton-Salazar/Vásques/Mehan 1996) and the university requiring innovative means to prepare its students for a diverse and complex world. In the process two unequal populations come to better understand each other creating a model of social change (Martínez 2012).

Previously, *La Clase Mágica* scholars have focused primarily on the child participants' academic achievements and life careers, and the subsequent contribution to social change of minority groups (Martínez 2012). However, in establishing quasi-laboratories in community-based institutions that link to practicum courses, the university provides rigorous academic training in disciplinary knowledge as well as practical experience in cultural citizenship (Eyler/Giles 1999). These experiences provide university students with the opportunity to engage in innovative pedagogies that connect theoretical concepts with real life situations, one of the most important contributions of LCM (Macías/Martinez-Lozano 2013; Macías/Martinez-Lozano/Mateos 2014; Martínez 2012; Vásquez 2003; Flores/Vasquez/Clark 2014). However, the university students' social and intellectual development has not received sufficient attention in this initiative. The benefits obtained by university students in terms of their own academic, social, cultural and individual development have not been widely documented, in spite of the overwhelming amount of field notes they have written over the life of the project. These field notes constitute a major source of data for the study of child development and the efficacy of specially designed curricular

materials and learning environment. As we point out below, field notes also provide a window into the impact that a specialized course and an informal educational activity has on undergraduate students' own academic and identity development. These field notes allow us to track the changes that university students themselves undergo as they participate at the field sites as co-collaborators with community participants in the problem-solving process (Macías/Martinez-Lozano 2013; Macías/Martinez-Lozano/Mateos 2014; Martinez 2012; Vásquez 2003).

2 Theoretical Background

Learning processes are always situated (Lave/Wenger 1991; Rogoff 1990). When these take place in settings where students are personally involved, new information is assimilated into their own life story, gaining meaning and significance in terms of who they are in the world (Polkinghorne 1988). Their personal involvement is therefore a key means for analyzing and therefore understanding the processes of learning beyond purely cognitive dimension, including processes that affect personal identity (Wenger 1998). To better understand these learning processes, we combine insights generated in three different research traditions that have produced knowledge in the fields of cultural historical psychology, identity studies, and the study of pedagogy. Each of these traditions account for the three elements that we consider fundamental to understanding the learning processes of students during their participation in LCM. First is the notion of *real learning*, conceived by the cultural-historical psychology research tradition (Meijers/Wardekker 2003; Van Oers 2005, 2006, 2007; Wenger 1998) as a significant, authentic and long lasting type of learning. These scholars argue that when real learning happens, the learner's identity is affected and transformed. We build on the findings of identity studies that focus not only the cognitive, but also on the emotional processes that lead to the experience of *identity change* (Erikson 1968; Bruner 1986, 1990; Brockmeier/Carbaugh 2001; McAdams 1996, 2001). Additionally, we study these processes in the context of *service-learning* programs in higher education programs as a pedagogical methodology where the two processes – real learning and identity change can be analyzed (Eyler/Giles 1999; Knapp/Fisher/Levesque-Bristol 2010). Up to this point, much of the work produced in the study of service learning has focused on its applied nature. A theoretical framework for showing how learning processes are supported in service learning programs has not been rigorously developed. We believe that the notion of real learning developed within the cultural-historical tradition in psychology provides a thoughtful and meaningful account of these processes. We aim to shed light on the complex learning processes happening at LCM by creating a dialogue across three different research and applied traditions that centers on the concepts of service learning, real learning and identity change.

Service Learning. Previously service learning has been linked to such educational practices as volunteering, co-operative education, internships and community outreach. However, the scope of service learning goes beyond the goal of collaborating with community on social issues. It also involves self-reflection on participation and on the process of learning (Giles/Eyler 1994). As community-based learning activ-

ity, service learning can be identified as a kind of "boundary practice" (McMillan 2011) within an activity system at the boundary of two pratices: the university and the community. Additionally, service learning represents a methodology designed to help students attain an experience in practical and real life issues through non-traditional strategies. The National Commission on Service-Learning (Fiske 2001) defines it as "… a teaching and learning approach that integrates community service with academic study to enrich learning, teach civic responsibility, and strengthen communities" (p. 6). In this sense, service learning is an educational practice in which community and formal education come together to enhance the potentiality of institutional curriculum. It also aligns with critical pedagogy, critical postmodernism (Anzaldua 1987; Giroux 1992) and new literacy proposals in education that goes beyond what is traditionally understood as a formal curriculum in higher education (Cazden et al. 1996).

Participating in a boundary space involves contradictions and tensions at the same time that it generates new forms of meaning that support learning beyond the cognitive and conceptual level. Following Mitton-Küner, Nelson & Desrochers (2010), it may also encourage major changes in the identity of participating students. According to these authors a service learning experience is an example of a cross-cultural experience, influencing participant's identities in the same way that "borderland" and "otherness" experiences produce "alterity," that is, experiences that promote self-related reflections and transformations (Macías/Amián/Sánchez 2008; Macías/García/Sánchez/Marco 2010; Macías/de la Mata 2013; Macías 2013).

Real Learning. The notion of "real learning" (Simons 2000; Meijers/Wardekker 2003; Van Oers 2005, 2006, 2007) provides the framework for assessing the developmental process of the undergraduate students' LCM experiences, helping us to understand how, in their participation at the sites, they learn about their academic disciplines at the same time they acquire new cultural ways of knowing. When real learning happens, cognitive changes are not the only changes that take place, other aspects of learning do as well. For example, they acquire social knowledge about other people and cultures, professional practical abilities, and importantly, they also acquire a new way of looking at the world and of seeing oneself in a new light (Simons 2000). They undergo a transformation much like Vygotsky (1987) and other cultural historical theorists have described as *perezhivanie,* which literally means "living through," and in this context, with the connotation of thriving is "the process through which children make meaning of their social existence" (Mahn 2003, p.129).

Identity change. In this situation, real learning makes possible the transformation of the learner's own identity. Learning requires a motive that allows the learner to participate in a social group (Van Oers 2005, 2006, 2007) and thus, we argue that real learning from this perspective necessarily implies a motive. A motive can arise from a "real" question, or a gap between what the individual aspires to achieve and what she actually can achieve given available resources. If there is a motive to learn, it is possible that real transformation and identity change can take place. A motive is not only a cognitive and individual construct it is also supported by a social activity that involves emotions. A motive, or a genuine question, can be analogous to what is called a "boundary experience" in identity studies (Meijers/Wardekker 2003). A "boundary experience" has been defined in identity studies as a situation that produces a turning point in an individual's autobiography (Sarbin 1986; McAdams

1996, 2001; McAdams/Josselson/Lieblich 2006) in which she experiences fully the limits of her existing resources. When the learner not only knows but feels that her own previous resources are not enough for interacting fully as a member of a given social group, a motive for belonging to this social group emerges, spurring an identity change as Wortham (2001, 2003, 2006) documents in his analysis of the development of Latino learners' academic identity. In Erikson's (1968) terms, a "boundary experience" produces an "identity crisis" that triggers a commitment to a goal and the social practice that supports the motive implicit in that commitment. This commitment is to a community of practice (Wenger 1998; Wortham 2001, 2003, 2006) where learning happens within the enactment of identity positions built into the ongoing activities of everyday life. It is a commitment to a given idea of who one is in relation to the world and to oneself, deriving from the emotion in the sense-making of new experiences.

Weaving these theoretical traditions together allows us to view *La Clase Mágica* as service learning experience that positions students in a "borderland experience" with "cultural others," creating "real learning" in an integral way. Under the framework of a practicum course students, not only learn how to apply theoretical concepts in a community context, but, through real participation and reflection they also develop emotions and feelings that affect them personally and thus affect their identities as well. In part, these experiences deal with intercultural interactions where individual values and cultural assumptions are challenged and relativized. In sum, service-learning activities at LCM provide ample opportunities for identity change as students experiment with their position in carrying out innovative activities and then documenting the processes that they and the children undergo – for them, a reflection on the efficacy of their interactional strategies in supporting their younger peers development and then turning the ethnographic lens on themselves to document their experience in applying theory to practice and the lessons they take away.

3 Methodology

The research context of this study is *La Clase Mágica* (LCM) in two distinct sociocultural contexts, San Diego (US) and Seville (Spain), a unique example of preparating undergraduate students. In the US, LCM is situated in three Mexican origin communities and a Native American reservation in San Diego County located in Southern California. This expansion has inspired other initiatives along diverse geographical and social landscapes including *La Casa de Shere Rom* in Barcelona (Lalueza/Crespo/Pallí/Luque 2001; see Padrós et al. in this volume) and LCM-Sevilla in Spain, both working closely with Gypsy communities. It also has inspired *La Clase Mágica* UTSA (University of Texas in San Antonio), which focuses on preparing teachers in the areas of science, technology, engineering, and mathematics (STEM) to work with English learners from Mexican origin communities (Flores et al. 2014).

La Clase Mágica San Diego programs have targeted different developmental age groups, ranging from pre-school to adulthood (Macías/Vásquez 2012). Bilingualism and biculturalism have formed the social and intellectual foundation of all adult-child interactions and curriculum materials strategically linking to the participants'

prior history (Vásquez 2003). The LCM sites are institutionally linked to an undergraduate course, "Practicum in Child Development" providing both theoretical and practical training: theoretical and research training in the course and hands on experience working with child participants around specially designed learning activities. In collaborative engagement with child participants, undergraduate students offer community service at the same time that they learn to connect theory to practice and discover new social realities. More concretely, for approximately 9 weeks- of an academic quarter, students participate two hours once or twice a week at LCM sites, depending on the distance to the sites – the San Pasqual Reservation, for example, takes close to an hour to reach, making it impossible for students to attend more than once per week. In Seville, students go a short distance by bus to participate at *La Clase Mágica* once a week for 2 hours. In both cases students participate as "more capable peers," (Vygotsky 1987) collaborators, ethnographers and participant observers when interacting with the community members. Their primary role at the sites is to enhance the learning potential of the participants by scaffolding their progression across their Zone of Proximal Development (Vygotsky 1987).

Subjects

Three subjects were chosen from each of the university courses that constitute this study: "Practicum in Child Development" at the University of San Diego, California (UCSD) and "Learning processes in non-formal contexts" at the University of Pablo de Olavide - Seville (UPO). They were selected randomly from the total sample that attended the sites during January to March, 2013 (corresponding to the Winter quarter at USCD and the second semester of the course in UPO). The UCSD "Practicum on Child Development" co-listed course is offered through the Department of Communication, the Human Development Program, and the Department of Psychology. Attending the afterschool activities at the LCM sites was a class requirement for all students. Most of the students of the UCSD course were from White American and Asian backgrounds with one or two Latino youth. The Seville course offered at a Social Education degree at UPO. A total of 40 students attended classes throughout the year, but only a few of those participated in the LCM project. Attendance at the sites was voluntary. All UPO students were Spanish middle class non-minority students. In both cases, class discussions were based on texts related to learning processes, learning in cultural contexts, inter-cultural interactions and cultural psychology, always related to student's site experiences at LCM. In both cases, student's ages ranged from 18 to 26 years old. Both sets of students had to submit ethnographic fieldnotes after each visit to the site. Both courses also required a final research report on their own applied experience and developmental learning trajectory of the participants or themselves. The fieldnotes were our data source for this research.

Data Analysis

For our research, we used qualitative methodologies of narrative analysis. As in many traditions of research, especially in identity studies, narrative is considered as a privileged method for the study of learning processes that enable the detection of

identity transformations and turning points. According to Bruner (1990), the defining characteristics of narratives are their temporal and sequential organization. It is through the sequential ordering of events that narratives attain their power as interpretative and sense-making devices. Thus, narrative analysis has arisen as the most productive methodology in identity studies for assessing the processes of identity construction in specific situations (De Fina/Georgakopoulou 2012; Wortham 2001, 2003, 2006; Bruner 1986; 1900; Brockmeier/Carbaugh 2001).

In our study we applied narrative analysis to the students' fieldnotes supported by Grounded Theory (Strauss/Corbin 1994) and Atlas-ti 5.0 software. We analyzed all the fieldnotes produced by the six subjects selected from both sites. Data sources numbered 15 field notes from UCSD and 15 from UPO students. The present research tracks references in the field notes that indicate learning among the participants in terms of defined categories. Below (see Table 1), we present the category system that emerges from these analyses. Given our sample is restricted; our study is an exploratory-pilot research. Our goal is to shed light on the processes of meaning making, identity changing and real learning that happens as a result of students' participation at the two LCM projects. Our expectations are to build a methodology to analyze these processes and in the future to apply it to larger samples.

The categories of Analysis

We used an inductive, grounded theory methodology (Strauss/Corbin 1994) to analyze the 30 field notes that constitute our data. Through this process of filtering data from the ground up and engaging in data-theory dialogue, we have derived three main categories that reflect three main types of learning identified in the texts: conceptual learning, profession-related learning and attitudinal learning. The table below summarizes the set of categories used for the data analysis:

Table 1. Categories of analysis applied to field notes of both U.S. and Spain Students

CATEGORY	SUBCATEGORIES	DEFINITION
Conceptual Learning	**a) Theoretical Concepts:** Appropriation of theoretical concepts as part of one's vocabulary in writing FN.	References to theoretical concepts in the field notes (FN)
	b) Apply theory to Practice: Specific examples in FN on how theoretical concepts apply to observations of social situations at site.	
Professional related learning	**a) Acquisition of Profession skills:** Mention of one's acquisition of skills in relation to how professions solve practical problems.	References to one's acquisition of profession skills to solve practical problems and of feeling part of the professional community.
	b.) Identification with community workers: Mention of feelings of inclusion and equality among professional practitioners at community center.	

Attitudinal Learning	a) **Self-identity:** References to situations that produce awareness of one's knowledge of self, emotional state and limitations of one's own resources and knowledge frameworks.	Reference to situations of self-reflection and awareness of new cultural understandings.
	b) **Intercultural skills:** References to enhanced understanding of the social and cultural reality of the community and its inhabitants (the "other") as well the surprise and curiosity that the actions and habits of community members provoked in them.	

Source: Gómez-Estern/Martinez-Lozano/Vásquez

The *conceptual learning* processes relate to the subject matter of the course and include references to *theoretical concepts* and *applications of theory to practice*.

Profession-related learning include quotes where students reflected their acquisition of professional skills; made reference to any skill developed by the professionals they were in contact with at the site (observational learning about the community process); and quotes that show any kind of closeness or equality with the community of professionals they interacted with.

Attitudinal learning includes all the students' quotes that made reference to aspects related to *self-identity*, and to *intercultural skills*. We have coded "*self-identity"* all comments that reflected *self-knowledge*, *self-criticism*, or any statements that showed any emotional state. Under *intercultural skills,* we have included quotes where students made reference to aspects that reflect their *approach to socio-cultural reality* (the specific social and cultural reality of minority groups) and the acquisition of *knowledge about the "other*;*"* and any statement reflecting *surprise or curiosity* about the context, the situation or the participants.

4 Results and Discussion

Our preliminary results illustrate how the experience of service learning in Seville and San Diego among students constitutes "real learning" experiences that impacts the students' identities and reinforces their community belonging. In this section we sketch how the different categories that emerged from our analysis relate to the conceptual framework developed in the theoretical introduction. We offer evidence of how learning takes place through a service learning methodology that goes beyond traditional formal learning thus enabling real learning to directly affect a personal process of identity change. Analyses of the field notes also show that the process of learning happening while participating in LCM is not restricted to conceptual knowledge of abstract and decontextualized ideas in the classroom, but it also relates to practice and professional experience. The excerpts below, drawn from longer field notes, provide glimpses into the ways service learning involves the opportunity to apply theoretical learning to specific professional settings. These skills are related to the promotion of real learning in the sense that knowledge acquires a meaning in a specific context. However, this is not the only characteristic that makes service learn-

ing an adequate scenario for the development of real learning. The connections with social and emotional dimensions must be also documented and assessed.

Conceptual Learning

The field notes show that students can use the concepts learned in class and apply them to practical and real problems. This aspect of real learning is contemplated in the category named *conceptual learning*, which includes two subcategories, the management of *theoretical concepts* and the *application of theory to practice*. These two subcategories together have been noted in 147 quotes at the Seville and San Diego sites together. The examples below show how students have the opportunity to test and apply the conceptual frameworks discussed in their university courses.[2]

"With Elias, I found the use of his bilingualism to be very beneficial, and by using both Spanish and English in our activity it made him feel more comfortable and actually gave him some form of control over our interaction by being able to teach me Spanish words. Vasquez explains the benefits of using bilingualism in the classroom and I really noticed that using this bilingualism really enhanced my interaction with Elias" (Fieldnote, San Diego, Winter 2013).

"This week I have noticed that the student's learning process – referring to the adult community member attending to literacy class – has been very optimal. The class time has been very well organized. At the beginning new concepts were reviewed, and only after all previous concepts were settled new contents were taught" (Fieldnote, Seville, Second semester 2012–2013).

As can be seen in the excerpts we present throughout, the students find the opportunity to really "see" how the ideas and theories they discuss in class take form in real educational settings. In some cases they are themselves the agents who apply the teaching methodologies studied at the university, a circumstance which makes learning more vivid and real.

Professional-related Learning and Attitudinal Learning

The categories that signal identity-related processes that are evolving in the student's learning processes are those related to their, *professional-related learning* and *attitudinal learning* especially the reference to identity and self: Both categories highlight the social and emotional components of learning that students experience at the sites, while undergoing an identity changing experience. Social and emotional dimensions of learning are two sides of the same coin. As Wenger (1998) and Wortham (2001, 2003, 2006) argue, all learning happens in a social context where individuals perform a task that has a social meaning and interiorize the motives of the social activity. This appropriation of motives involves a commitment to the community of practice that supports the task, as well as point to the wish to belong to that community and to be part of a given social identity.

2 All Seville site field notes were originally written in Spanish. Originals are not displayed in this version for space restrictions. Translations have been done by the authors.

Professional-related learning are references in the field notes that show how the students begin to relate to themselves as social, educational or community workers. They begin by taking part in quasi-professional teams that form a new community of practice for them, with its own rules, norms and activities. It also involves feeling part of a quasi-professional group that holds a given identity construction, which might be appropriated and practiced by the students, promoting changes in their own self. The subcategories included here are *acquisition of professional skills* (123 quotes) and *identification with community workers* (20 quotes). In the following excerpts we see some illustrations of this processes as narrated by the students in their fieldnotes:

"It has been a very enriching opportunity, because, as future social educator, I hope I will participate in many meetings like this one. I find extraordinary the fact that I have been able to observe the dynamics of a community workers meeting while being still a student" (Fieldnote, Seville, Second semester 2012–2013).

"I used this as an opportunity to observe how he interacted with the children and what was successful for him, and I noticed that he incorporated a significant amount of Spanish with the children and really emphasized the positive use of bilingualism" (Fieldnote, San Diego, Winter 2013).

"I have felt more as a professional than I expected, especially because I have been treated by the other professionals as equals, in a very natural way, interacting with me in a direct way and exchanging opinions and information" (Fieldnote, Seville, Second semester 2012–2013).

Finally, but not less important, we present references to attitudinal and self-related dimensions of learning in our data. With this categorie we want to highlight what we consider to be the most relevant part of real learning as an integrative personal experience: its emotional and identity-changing dimension. As developed in the theoretical introduction to this article, this aspect constitutes the most innovative contribution of the real learning approach. Real learning is not learning in a "cold," purely cognitive dimension, but learning through a process that encompasses changes of identity. This moves us to conceptualize the learning process in this context as an identity-changing experience, as the whole person changes and transforms while participating in a new community of practice. In this process new meanings emerge, as well as new insights and changes take place in the knowledge framework that touch the self of the learner. In our analysis we have tried to search for traces of this identity-transforming experience as the students participate in a service learning project.

The sub-categories that account for these changes have to do with both processes of self-reflection (self-knowledge, self-criticism, reference to emotional states) all contained in the *sub-category* as well as with processes of "alterity" and otherness that emerge in the intercultural experience (sub-category *intercultural skills*). In all our projects, students interact with minority community members in a non-hierarchical environment. In some way, the fact of getting the opportunity to interact personally with members of the Mexican American and/or Native American communities in San Diego and the gypsy community in Seville may, as Martinez (2012) found, disrupt the student's value reference frameworks, and incline them to question both their previous assumptions and resources as well as their identities. The categories that reflect these identity-transforming experiences directly relate to the participation

in intercultural settings and also affect their *intercultural skills*. This subcategory includes references to enhanced understanding of the social and cultural reality of the community and its inhabitants (the "other") as well as the surprise and curiosity that the actions and habits of the community members provoked in them. Below we present the analysis of these categories.

We found 44 quotes that relate to the experiences in which students reflect on self and identity. Below, we present excerpts in which students expressed Emotional states while interacting in the sites:

"As we arrived to the site I felt a bit estrange, out of place, but as soon as we all have introduced ourselves, everybody started speaking and the community managers were addressing us all the time, including us and motivating us to participate. The feeling of out of place disappeared, and I felt more relaxed and comfortable" (Fieldnote, Seville, Second semester 2012–2013).

"Last week, I was a little intimidated to have someone watching my every word and interaction with the children and was nervous that I might do or say something wrong. However, hearing that she was simply observing the developmental levels in the children dismissed any of my concerns" (Fieldnote, San Diego, Winter 2013).

The second subcategory included in the *attitudinal skills* category has to do with the acquisition of *intercultural skills*. It reflects the turning point in identities that emerge when interacting in new socio-cultural spaces. In our data, these categories were the most predominant. The excerpts of field notes above below show the extent to which interacting as equal members of the problem solving process with members of cultural groups, traditionally underpowered in both North American and Spanish societies, change students' perceptions of minority groups and of themselves as members of the majority group. For these students, being able to familiarize themselves with other cultural settings and explore different worldviews around meaningful interactions opens their reference frameworks in ways that affect their own values and perceptions of reality and their own identities. We found 85 references to the new understandings of the social and special reality – approach to reality – of minority groups and themselves. The most numerous reference in our whole set of data was knowledge of the "other" with 147 quotations. This finding reflects how meaningful it is for the students to have the opportunity to interact with members of different cultural communities, and to what extent this experience impacts their own values and lives. Finally, we also found a number of quotes where students made references to moments of curiosity-surprise when observing and being exposed to values, behaviors and activities performed by the community members, which also incite the acquisition of intercultural knowledge (18 quotes).

Our goal is to continue to use narrative analysis to explore more deeply the ways these processes take shape in the context of the turning points signaled by students in a larger sample. Below are some examples of how they reflected the mentioned processes in their field notes.

"One of the things that has captured my attention I show surprised they (the gypsy women) get when they know our ages. They are stroked by the fact that at our age, we are still studying, not having married or having children yet. Carmen (one of the women) for example is only a bit older than u and her family is her main occupation. This makes me think how different can be people's lives depending on the context where they develop. Their culture, their

close environment, their experiences, have conditioned their lives in such a way that their lives are totally different from ours even if we have similar ages" (Fieldnote, Seville, Second semester 2012–2013).

"This week I was very impressed with all of the children I worked with. In the events of the day I think it is getting easier for me to use background experiences with the knowledge gained through the reading assigned in this class. Normally I would work similarly with the children as I did today, but having read different articles it has opened my eyes to how children react and engage to certain situations. I hope to continue to help the children open up about their life outside of school and learn more about their community. Hopefully next week all of the groups can work collaboratively together and maybe do some sort of skit about their community or daily life using the puppet set" (Fieldnote, San Diego, Winter 2013).

Together, these data confirm what authors such as Mitton-Kükner, Nelson & Desrochers (2010) have stressed about service learning as an identity-changing experience that can be analyzed through narrative inquiry. The students' field notes offer evidence that participation in a service learning experience like *La Clase Mágica*, as observed in two distinct sociocultural realities, draw experiences and knowledge closely related to real learning that are similar to what some cultural-historical scholars have proposed (Simons 2000; Meijers/Wardekker 2003; Van Oers 2005, 2006, 2007). Real learning, related to participation in a professional community of practice, encompasses knowledge and skills that range from conceptual learning to the acquisition of skills of professional practice and, most importantly, to identity change that transform their own perceptions of self.

5 Conclusion

Learning through innovative pedagogies that connect theoretical concepts with real life situations and problem solving has always been one of the main goals and objectives of *La Clase Mágica* for university students. Moreover, linking experiential learning with a strong academic foundation has recently become a prominent focus in higher education (Underwood/Parker/Stone 2013). Our study offers a window into what exactly it is that students learn in terms of their academic and professional knowledge, their understanding of their own place in the world, and their participation in the advancement of cultural citizenship among the members of the community who are outside the mainstream of their society. Our small sample aims to open a field of inquiry on service learning on university-community partnerships that present opportunities for learning among both the university and community constituencies.

These documented interactions at *La Clase Mágica* sites also can be read as acts of intercultural communication that position both the community and undergraduate participants in a complex world to develop special competencies required to negotiate the social realities of complex, technology-driven globalized world (Cazden et al. 1996; Trilling/Fadel 2009). In the process university students learn to build positive relations with culturally different children and adults and come to confront their own cultural and linguistic limitations. They become prepared as future leaders to work in settings where their cultural assumptions are not necessarily seen as more

powerful or resonant than those of their minority counterparts. Importantly, they learn firsthand about being a new self in our changing world through their own experiences rather than second hand, from academic texts, and as a result, they become able more readily to apply innovative teaching and intervention methods.

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Dancing Ethnicity: A Qualitative Exploration of Immigrant Youth Agency in an Ethnically Specific Program

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Abstract: This article addresses a conceptual gap in the Out-of-School Time literature by offering a framework to study the relationship between ethno-cultural components in programs focused on youth ethnic culture (ESPs) and ethnic identity development among long-term participants. Using qualitative methodologies, it examined the meaning-making of eight Colombian immigrant youth participants in ColDance, an after-school program focused on Colombian culture in Boston. Findings suggest ColDance played a powerful role in fostering a positive connection with youth's ethnic heritage crystallized in tangible dancing skills and specific knowledge about Colombian traditions. It provided and nurtured cultural brokers who eased youth's adaptation process. Further, it suggests that a performance-oriented program may expose youth to receptive audiences that function as social mirrors fostering positive self-concepts.

Keywords: After-school programs, ethnic identity, immigrant youth, Colombian youth, positive youth development.

Out-of-School Time (OST) programs are considered key contexts for the positive development of diverse children and youth (Vandell/Pierce/Dadisman 2005). Studies suggest that OST programs geared to minority children are most effective when they are culturally relevant. Although research on OST has made great strides in assessing the effects of different programming modalities, less is known regarding the effects of programs that are organized around youth ethnic culture. Some argue that programs geared to minority youth, including immigrant youth, have been too focused on the prevention of risk behavior rather than on the promotion of positive development (Villarruel/Montero-Sieburth/Dunbar/Outley 2005). In contrast, *Ethnically Specific Programs* (ESPs), an OST modality, aim to instill a sense of pride in immigrant youth ethnic background and maintain cultural traditions, which might not be valued in the larger society or represented during the school day. Through a qualitative study of Colombian immigrant youth, this article explores the mechanisms that may be involved in strengthening ethnic identities in long-term ESP participants, resulting in a conceptual framework for the study of ethno-cultural dimensions of ESPs.

1 Theoretical Framework

Ethnic Identity Development

Adolescence is a critical period when identity is formulated in relation to past experiences, societal contexts, and the individual's expectations for themselves (Erikson 1968). This process is multidimensional in that identity develops simultaneously within different realms (e.g., gender or race/ethnicity). For immigrant youth, ethnic identity is a salient dimension, especially in contexts where there is contact with different ethnic groups.

Ethnic identity (EI) can be largely defined as the psychological sense of belonging to an ethnic group, based on either objective characteristics (e.g., language, food) or subjective ones (e.g., shared values, goals, and beliefs) (Suárez-Orozco/Suárez-Orozco 2001). From a developmental perspective, Phinney (1990) argues that individuals go through three phases of ethnic identity formation: foreclosure/unexamined, exploration, and identity achievement. Foreclosure involves an unexamined sense of identity mostly based on others' opinions. During exploration, individuals delve into the personal meaning of ethnicity, which is often expressed by an increasing interest in their ethnic group's traditions and history and immersion in ethnic activities. The last stage of ethnic identity achievement is defined by a committed sense of belonging, positive feelings about one's ethnic group, and an appreciation for others.

A number of studies have demonstrated that an achieved EI is associated with various positive outcomes (Phinney/Horenczyk/Liebkind/Vedder 2001), such as high self-esteem, academic achievement, and overall wellbeing. Yet, the ultimate result can be affected by experiences of racism and discrimination, which may have a negative impact on youngster's sense of self and of others (Suárez-Orozco/Suárez-Orozco 2001). According to Suárez-Orozco (2000) adults, peers, and the media become the social mirrors of immigrant youth; positive and negative images reflected back to them can lead to a sense of self-worth or the lack thereof, respectively. In a longitudinal study of 400 immigrant children, Suárez-Orozco and Suárez-Orozco (2001) found that children were aware of the negative and hostile images related to their ethnicity. They found that when negative messages about their participants' ethnic group were strong, children either internalized such images of themselves or exercised resistance.

The effects of negative stereotyping can be attenuated or intensified depending on the frame of reference immigrants use to interpret their current experiences. Louie (2006) argues that the dual frame of reference that informs identity formation can be either ethnically or transnationally oriented. An ethnically oriented identity compares personal experiences and achievements with co-ethnics in the context in which they have been incorporated into the U.S. and is more akin to a U.S.-made identity, whereas a transnationally oriented identity uses as a point of reference the experiences of co-nationals in the country of origin. In a study of college students in New York, Louie found that Dominicans, despite growing up in neighborhoods marked in part by high levels of poverty, violence, and low-quality schools, were more optimistic about their future in the U.S. than their Chinese counterparts, who were doing better academically (Louie 2006). Youth's dual frame of reference helped

explain this paradox in that Dominicans compared themselves to co-nationals in the Dominican Republic who they thought were doing worse, whereas Chinese students compared themselves with co-ethnics in the U.S. who were presumably doing better than them. The transnational frame did not necessarily come from first-hand experience, but from transnational experiences and possibly parental transmission of transnational skills and ideas (Louie 2006).

Others have argued that symbolic or emotional transnational practices can serve as cultural resources that contribute to ethnic identity formation by providing a sense of belonging and pride in individual's ethnic background, especially in the face of discrimination and racism (Viruell-Fuentes 2006).[1] In today's anti-immigrant climate, understanding how ESPs with ethno-cultural components might serve as buffers against negative messages is critical. Moreover, while the role of parents in orienting youth transnationally has been explored, less is known about the role of other practices that may do the same.

Organized Activities and Ethnically Specific Programs (ESPs)

Increasing numbers of children are engaged in *organized activities* during after school hours.[2] As a result, the last decade has seen a growth of studies on the effects of participation that range from academic to socioemotional and health-related outcomes (Little/Wimer/Weiss 2008). Organized activities are more effective when developmentally appropriate, and adequately structured and staffed (Little et al. 2008). Relationships with caring adults and staff help youth connect to other cultural realms and provide role models or mentors (Rhodes 2004). Participation in organized activities is often voluntary, which makes youth more motivated to persist in activities they find engaging, safe, and structured (Borden/Perkins/Villarruel/Stone 2005). OST programs have the potential to promote and showcase youths' talents and competences, and foster a sense of self-efficacy, which contribute to the development of resilience or "patterns of positive adaptation in the context of significant adversity and or risk" (Masten/Reed 2002, p. 75). Specifically, dance, drama, and performance-based programs influence identity development by giving youth the opportunity to explore and experiment with different roles (Barber/Eccles/Stone 2001), to reconnect with their personal and cultural identities (Davis/Soep/Maira/Remba/Putnor 1993), and to feel proud of their ethnic heritage (Ball/Heath 1993).

According to Masten and Coastworth (1998) promoting a sense of belonging and a positive connection with youth cultural heritage can be a powerful protective factor leading to positive adaptation in ethnic minorities. Researchers of out-of-school time (OST) have noted the importance of making programs culturally relevant, of incorporating cultural knowledge and materials that reflect the communities they serve, and of having trained staff, especially in diverse contexts (California Tomorrow 2003;

1 Transnationalism refers to the activities, loyalties and networks that connect immigrants with their country of origin, while still being incorporated into their host country (Guarnizo/Smith 1998). Emotional or symbolic transnationalism captures the affective and private aspects of transnational practices, such as the memories and attachments to the home country (Viruell-Fuentes 2006).

2 The use of the term *organized activities* is consistent with Mahoney, Larson, Eccles and Lord's (2005) definition, which refers to them as activities "that are not part of the school curriculum" and which are "characterized by structure, adult supervision, and skill building." (p. 4). Henceforth, we use organized, out-of-school, and after-school-, activities interchangeably.

Harris 2007; O'Cadiz 2003). Yet, frequently culturally relevant components in OST are conceived as a means towards achieving other goals, such as preventing drug abuse, academic underperformance, or dropout in ethnic minority groups considered "at risk" (Pittman/Irby/Yohalem/Wilson-Ahlstrom 2004; Riggs 2006; Schinke et al. 1988). While addressing the needs of minority youth and preventing risk taking behavior are important goals, it is often the case that the strengths and assets of these communities are absent from programs' conceptions (Villarruel et al. 2005).

There has been a range of terms used to talk about programs that include cultural components relevant to the group they target, such as *ethnic-oriented organizations* (Borden et al. 2005)*, cultural enrichment activities* (Pittman et al. 2004)*, cultural/heritage programs* (The Harvard Family Research Project),[3] or *community-based celebrations* (Eccles/Gootman 2002). However, there is a lack of consensus of how to call these programs and how to conceptualize them.

The term Ethnically Specific Programs (ESPs) is introduced here to describe those that are targeted towards homogenous groups comprised of mostly first and second generation immigrant youth. They are focused on youth ethnic culture and on preserving expressive cultural practices, such as dance and music.[4] Some examples include *Ballet Folclórico* for Mexican youth or *Hmong Youth Pride* (Chase/Clement 2000)*,* a Minnesota-based program that teaches Hmong language and culture to youth. By emphasizing "ethnic" rather than "cultural," we intend to capture the contextual character of ethnicity as linked to processes of racialization (Blum 2007; De Genova/Ramos-Zayas 2003; Rumbaut 2009) and not to equate ethnic culture with culture, which renders the dominant culture as a point of reference. As such, referring to Colombians as ethnics reflects their minority status as part of the larger Latino pan-ethnic and U.S.-made category, with associated political and social implications.

ESPs are more clearly aligned with a developmental asset framework that conceives of youth's cultural traditions as a source of strength leading to positive adaptation (Benson 1997). The few existing studies of OST programs with an ethno-cultural approach have shown positive outcomes, including diminished problem behavior, improved attendance, and enhanced cultural identity and future-orientation (Harvey/Hill 2004; Mason/Chuang 2001; Stevens/Owen 1998; Whaley/McQueen 2004). In these programs, both students and parents feel particularly connected with the ethnocultural component (Chase/Clement 2000; Shinew/Hibbler/Anderson 2000).

In this body of literature, studies focused on immigrant youth participation and associated outcomes are still scant (Waldfogel/Lahaie 2007). There is mixed evidence on whether Latino immigrant youth participate more or less in OST activities (Simpkins/O'Donnell/Delgado/Becnel 2011), and even less on those who sustain long-term participation. Community-based organizations seem particularly attuned to immigrant youth needs (Halpern 1999) and can be invaluable to these communities. Organized activities often provide role-models and mentors that support positive youth development (Roffman/Suárez-Orozco/Rhodes 2003), ease the transition to the host country (Diversi/Mecham 2005), allow for ethnic identity exploration,

3 The Harvard Family Research Project (HFRP) maintains a database of OST programs and bibliography, including cultural/heritage programs. http://www.hfrp.org/out-of-school-time.

4 Alba (1990) argues that ethnic groups decide which "positive heritage" is worth preserving. The expressive or explicit dimensions are often chosen, such as language, artistic expressions, or folklore.

and promote self-regulation and feelings of self-worth (Riggs/Bohnert/Guzman/Davidson 2010).

Why Do We Need a Framework?

Several frameworks have been proposed to theorize the relationship between youth participation in OST and program outcomes (Durlak/Mahoney/Bohnert/Parente 2010; Fredricks et al. 2002; Vandell et al. 2005; Weiss/Little/Bouffard 2005). They have in common the inclusion of individual (e.g., gender, age, race/ethnicity), contextual (e.g., opportunities for participation), program (e.g., quality indicators), and youth participation factors (e.g., attendance, enrollment, and engagement). They also suggest the need to examine the interactions between contexts (e.g., family, school, peers, or neighborhoods) and propose mechanisms or theories that can help explain various effects (e.g., motivational, stage-environment fit, or identity development theories).

This study aims to complement these frameworks by providing an initial examination of the ethno-cultural mechanisms that may foster positive ethnic identities through long-term participation in ESPs, a subject that has received very limited attention. It adds to the existing frameworks by attending to the larger cultural context in which these programs are embedded that may depict ethnic youth as deficient or deviant (Villarruel et al. 2005) by considering the developmental processes specific to immigrant populations, such as acculturation (Simpkins et al. 2011); and by treating ethnicity as a contextually constructed dimension of identity that OST programs help shape, rather than as an individual and stable characteristic or variable. This framework was drawn from a qualitative exploration of the meaning Colombian immigrant youth ascribed to their participation in an ESP and the way they experienced the ethnically specific aspect of the program focused on dancing and performing Colombian folklore.

Contextualization

Colombian Migration to the U.S.

According to the 2005 Colombian Census, approximately 8% (3.3 million) of the Colombian population lives abroad, mostly as a result of the country's worsening economic and political conditions. In the U.S., Colombians constitute the largest South American group and the fourth largest among the undocumented population (Guarnizo/Espitia 2007; U.S. Census Bureau 2003). The Colombian experience is similar to that of other Latin American groups, such as Central Americans, who also endured war-like circumstances. However, Colombians tend to be more geographically dispersed, arrive with higher levels of education, have more urban origins, and self-identify largely as "white" compared to other Latin American immigrant groups (Guarnizo/Espitia 2007; Guarnizo/Sánchez/Roach 1999; MacDonald/Carrillo 2010). Both the U.S. war against drugs, and later its war against terrorism, have marked the relationship between the U.S. and Colombia and contributed to the stigmatization of Colombians as violent and drug traffickers (Guarnizo/Sánchez 1998).

The Ethnically Specific Program

ColDance (pseudonym) is an organization based in a large U.S. East Coast city that teaches Colombian folklore dance to youth. The mission of the group is multifaceted: to show the positive aspects of Colombian culture in response to the prevalent negative associations of Colombians with violence and drug-trafficking, to bring families together, and to keep children off the streets through dancing. At any given time, the group brings together 20 to 25 youths ages 11 to 25, who rehearse traditional Colombian dances such as *cumbia*, *mapalé*, and *joropo* every Friday throughout the year. Their biannual show has become a popular event for the Colombian community throughout New England, drawing a crowd of approximately 800 people. ColDance also prepares for occasional performances in settings like schools, universities, festivals, or national celebrations. The group puts together elaborated lighting, costumes, scenery, backdrops, sound, and choreographies. This has been a long process whereby youth have been asked to do research on different aspects of Colombian culture and collaborate with professional dancers, musicians, and choreographers. Families often participate and support the shows. ColDance was featured as a community-based organization that supports the positive development of Colombian immigrant youth in an article by Roffman et al. (2003).

2 Method

This exploratory research consists of a case study of eight long-term participants in ColDance. Qualitative methods were selected because of the paucity of research on ESPs generally, and on long-term ESP participants specifically. The case study method was used because it is suitable for comparing and contrasting participants in the study while keeping them grounded in their relational and personal context (Yin 2014). A nuanced approach is critical for research of understudied ethnic groups, because it recognizes the complexity and diversity of experiences and perspectives within them (Offer/Schonert-Reichl 1992). This is the case of Colombians, who are often grouped with other Latino groups, a research practice that obscures the particular nature of the U.S-Colombia relations and the history of Colombians in the U.S.

Participants & Procedure

The case study took place in three phases between 2000 and 2005. In 2000, all members (n=25) filled out a survey exploring their motivation and engagement in the group and their awareness of how Colombians were perceived. In 2004, eight youths were selected for a follow-up study that employed a semi-structured interview to elicit in-depth responses about their immigration history, ethnic identity, and the meaning of participating in ColDance. In 2005, a follow-up study with the same group focused on a multicultural hypothetical dilemma. The larger study included one formal interview and several informal interviews with the director of the program. The analysis for this article draws mostly from the two first phases. While the data may seem dated, the mechanisms to which the analysis here point to are not.

We used a purposeful sampling strategy (Maxwell 1996) to select eighth foreign-born youth (four males and four females) who were long-term (3 to 9 years) ColDance participants. Refer to Table 1 for demographic information. This type of long-term involvement is very uncommon as participation in out-of-school activities tends to decline during adolescence (Mahoney/Larson/Eccles/Lord 2005). However, for youth who remain committed, this study sheds light on *how* this involvement may shape their ethnic identities during their adolescent years.

We also included both current and former members (those who had left between 1 and 3 years prior to the interview), so that they could shed light on the reasons for discontinuing involvement with the group and the meaning of their involvement as they had gone on to different experiences. For them, some of the reasons for leaving included work and school demands that limited their time availability, entering a different developmental moment (e.g. parenting), becoming interested in other activities, or taking a particular professional trajectory that required different experiences.

The process of selection was based on the demographic information youth had provided during the first phase of the study and on more recent information the director provided about each member of this initial group. The ultimate selection tried to ensure that the study would draw insights from various perspectives (males/females and recent/former members) (LeCompte Preissle/Tesch 1993). It is important to note that these criteria limit generalizability to the extent that this study cannot shed light on those with less than 3 years of participation. It can be argued that this is a study of a self-selected group that already had positive identities, which motivated them to remain in the program. This is something that the study cannot rule-out; however, the focus here is on *how* long-term members perceived the different program components and what those components meant to them. Also, given the exploratory nature of the study about mechanisms that can promote positive youth development in the context of this program, there are limits to the generalization of the findings.

Most of the participants came from working-class families whose parents had either maintenance or cleaning jobs, and who were not college educated. While not all of the participants were undocumented, they all had been at some point. Participants had lived most of their time in the U.S. in working-class neighborhoods with large populations of Latin American immigrants and Colombians in particular.

To assess ethnic identity formation, we administered the Multigroup Ethnic Identity Measure (MEIM). A widely used measure created by Phinney (1992), the MEIM assesses (1) ethnic search (cognitive and developmental component) and (2) affirmation, belonging, and commitment (emotional component). It includes 12 items rated on a four-point Likert scale format. High scores indicate high levels of ethnic identity achievement and feelings of belonging. In a previous research with a college age sample, this measure had a reliability coefficient of .90 (Phinney 1992). The meaning they ascribed to their EI was further explored through a series of open-ended questions.

Interviews took place in participants' homes and lasted between 2 and 3 hours, during which consent forms were collected. The interviews were tape-recorded and transcribed, and conducted in the language in which participants felt most comfortable. All except one responded in Spanish. The first author collected all the data for this study.

Table 1. Demographic Information, ESP Participation, and Overall Migratory Experience

Pseudonym[1]	Age at Time of Interview	Age range of Participation	Years in ColDance	Age upon Migration	Overall Migratory Experience
Carlos	24	15 – 24	9	10	Language was hard. Didn't feel alone because of his family.
Oscar	24	15 – 24	9	13	Family reunification was hard. Felt disoriented.
Pablo	22	13 – 22	9	8	Things were different. People were walled-in (*encerrada*) and not friendly.
César	24	17 – 22	5	7	Given that he was so young, the change was radical, but not so hard.
Angela	20	11 – 17	6	5	Because she migrated at an early age and was more Americanized, she felt judged for not being Colombian enough.
Carmen	25	15 – 21	6	12	Language shock was horrible. Worst experience ever.
Lina	26	18 – 25	7	15	Traumatizing, frustrating.
Sonia	20	15 – 18	3	15	Terrible, felt very lost like starting from zero.

[1] Pseudonyms are used to protect interviewees' confidentiality.

Qualitative Analysis

We used both data-driven and theory-driven analytic approaches (Miles/Huberman 1994) to answer the research questions. Theories of OST, ethnic identity, and adolescent development informed the thematic analysis. Atlas.ti, a qualitative research software (Lewins/Silver 2007) was used for coding. The coding process involved developing open codes, including program components and how youth made sense of them. A process of code aggregation that pointed to more abstract categories followed (Boyatzis 1998; Strauss/Corbin 1990). These more abstract categories are reflected in the mechanisms and functions of the framework proposed here. There were several iterations of data analysis to ensure reliability of coding and achieve theoretical saturation. To keep youth responses contextualized in their personal and immigration experiences, we constructed profiles for each participant that summarized different data sources. We used matrices (Miles/Huberman 1994) to facilitate comparison across cases (Miles/Huberman 1994), constructed logic diagrams (Strauss/Corbin 1990) to assist with theory building, and wrote integrative and analytic memos (Nakkula/Ravitch 1998) to build and integrate our interpretations.

Even though retrospective studies are subject to memory recall bias (Thomsen/Brinkmann 2009), our focus on youth's interpretations of their long-term participation in ColDance and what they suggest about the possible mechanisms involved in such participation justifies and even requires the use of retrospective accounts (Scott/Aldwin 1998). Further, we subscribe to the view that present interpretations of past events are not merely accurate or distorted accounts that need to be captured reliably, but rather that they are integral to individuals' sense of self and identity (Flyvbjerg 2006).

Throughout the data collection process, one of the authors drew on her role as both an insider and an outsider. Her insider status derived from being, like most ColDance participants, a first-generation Colombian immigrant. Further, she had been a volunteer for the group for three years prior to carrying out the study. She developed relationships with the respondents during that time, which facilitated access to them, fostered some degree of openness on their part, and allowed her to have some shared understanding of their experiences, all of which allowed for a more in-depth study (Flyvbjerg 2006). That she was an "insider" also equipped her with the cultural skills necessary to study this population (Ojeda/Flores/Meza/Morales 2011).

At the same time, the fact that she had migrated to the U.S. as a young adult, and that her only educational experiences in the U.S. were as a graduate student, identified her as an outsider. Hence, she was particularly attentive to issues of reflexivity and to the risk that some of her interpretations could be misguided based on assumptions of shared experiences. To ensure study trustworthiness, we shared the analysis process with an interpretive community of qualitative researchers (Morrow 2005), searched for discrepant evidence across the different data sources and across cases, which aided in the triangulation of evidence, and checked for alternative interpretations in case we were limiting our analysis to our framework of understanding (Flyvbjerg 2006; Maxwell 2005; Nakkula/Ravitch 1998).

3 Findings

We first discuss youth's awareness of how Colombians are perceived. Next, we show how despite the negative views on Colombians, youth in this sample display positive ethnic identities. We then introduced the thematic analyses that theorized ESP mechanisms involved in positive identity development.

Mixed Perceptions of Colombians

To assess whether ColDance youth were aware of negative messages about them as Colombians, in the 2000 Survey, youth completed the following sentence: "Other people think Colombians are ____."[5] Consistent with Suárez-Orozco and Suárez-Orozco's findings of the children's awareness of the existence of negative images, 17 of 21 responses (76%) included negative words like *"traquetos"* (slang word for drug-dealers), "violent," "killers," or simply "bad", seven responses also included

5 This question was adapted from the Harvard Longitudinal Immigration Adaptation Program.

positive attributes (e.g., good people). Only four responses contained only positive attributes. These messages were explored more deeply later in the interviews where respondents discussed both positive and negative stereotypes associated with Colombians. Positive stereotypes include being good students, speaking good Spanish, being proud of who they are, or doing good things related to arts (e.g., Shakira). Despite these positive aspects, they all talked about being stereotyped as drug-dealers, violent, cheaters, undocumented, or terrorists. They attributed the prevalence of negative images associated with Colombia to the media and, sometimes, to the few Colombians "who have brought the bad reputation to others." Despite the negative associations, all interviewees felt proud of being Colombian and none mentioned feeling ashamed of their ethnicity. They often articulated their participation in ColDance as motivated, in part, by the need to represent Colombia in a positive light, which reveals their awareness of the processes of racialization in the U.S. (Rumbaut 2009) that depict Colombians negatively.

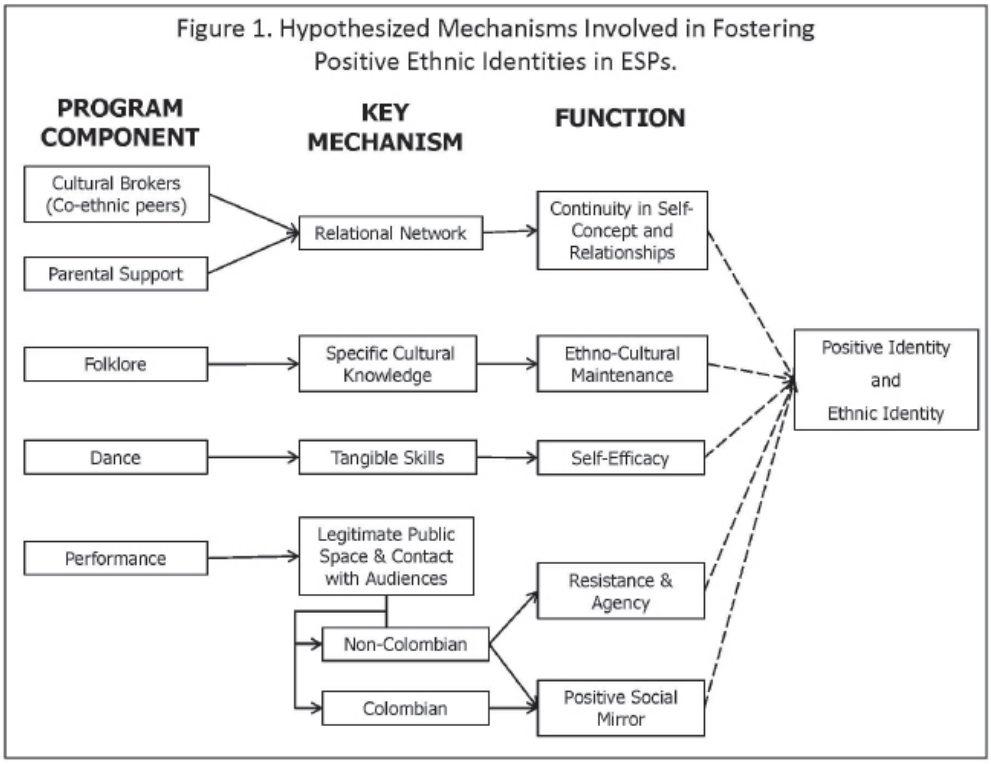
Positive Ethnic Identities

Despite youth's awareness of the stigma associated with Colombians, youth in the study displayed very positive ethnic identities (EI), with seven out of the eight youth scoring 3.4 or higher on the overall EI scores. From a developmental perspective, high scores for youth in their early to mid 20's are not entirely surprising considering that they should have gone through the process of identity exploration during adolescence. However, these scores are above average for the college sample studied by Phinney (1992), whose mean scores on EI were 3.04 compared to 3.5 for this sample. These high scores are noteworthy because, according to the MEIM, they reflect that these youths have shown an interest in learning about their ethnic group, have thought about the meaning of their ethnicity to them, and have a secure sense of an ethnic self. That their participation in an ESP focused on Colombian traditions, folklore, and culture probably contributed to strengthening their EI and provided opportunities for identity exploration during their adolescence.

Framework: ESP Components, Mechanisms, and Functions

Thematic analyses of interview data suggested important program components for long-term participants, the functions of those components, and the mechanisms underlying these functions that may have played a role in positive identity development. Major mechanisms included supportive social networks and opportunities to experience success as a result of hard work and practice, the learning of specific knowledge about youth's ethnic heritage, and the provision of a legitimate public space where youth performances of their ethnic heritage was valued. Figure 1 graphically illustrates these findings.

Figure 1.



Source: Pineda/Nakkula

Continuity in Self-Concept and Relationships: Doing What I Used to Do, Being What I Used to Be

Youth indicated that ColDance provided a sense of continuity in relation to activities and relationships severed by the process of migration. A social network of peers and caring adults, particularly the director, who felt connected by their common ethnic background promoted this continuity. Co-ethnics served as *cultural brokers* who helped youth engage in activities that they used to do before migrating and that were also available in the host society.

A cultural broker is typically a bicultural actor that serves as a link between the mainstream and the ethnic culture (Gentemann/Whitehead 1983). These individuals usually come from the same background as youth, are able to "translate" cultural norms, and are considered role models by ethnic communities who deemed them successful in the mainstream culture, such as teachers or counselors (Gentemann/Whitehead 1983). Lina explains how she thought she "was like a role model for others who joined, because many people used to say I want to dance like [her]." In ColDance both the director and long-term immigrant youth were admired by others, because, they danced well, had attended college (for some in spite of lacking immigrant documentation), and were examples of positive adaption for their community.

This function was particularly important in the face of the multiple losses they had experienced.

> [Kids in ColDance] were the ones who taught me to love being here, to be able to have a life again here; not feeling like 'okay, when am I going to return to Colombia?'… [they] taught me that there was more, there were movies, there were parks to enjoy, that there was a school where you could have cultural activities. I mean, I said 'okay, I can do the same things here that I used to do [in Colombia].' *Sonia*

ColDance cultural brokers made accessible information that helped youth navigate the new context, including connecting youth with engaging activities similar to the ones that defined who the participants were before migrating. Youth also expressed the need for continuity in relation to feelings of inadequacy and ColDance became a "transitional space" (Noam/ Biancarosa/Dechausay 2003), within which the navigation across different domains, such as school, work, and family was facilitated. While they conceived of those domains as separate or compartmentalized, ColDance seem to ease the transition into each of them and became a space that was familiar and supportive. Following are two examples:

> Six years of constant practice [made me last that long], that you would start the week, school, work, laundry, and you couldn't wait to get to Friday to go and say 'What's up, what did you do, how was your week? Tell me about this, about that person.' *Carmen*

> As a recent immigrant you lose your friends in Colombia, the group of peers at school, the neighborhood, your cousins, all the people you were in contact with […] By being in a Colombian group, you don't have an attitude anymore about school, [not speaking English], and this country. In ColDance, doing all those Colombian dances and [hanging out with friends] was like finding a little piece of Colombia in them. *Oscar*

For Oscar being in ColDance was a way of establishing a sense of continuity to counter the disruption caused by migration and for Carmen it was a key transitional space between school and home, one that was consistent and she could count on. Colombian peers helped them connect to something they valued and missed, especially in the larger context of their lives where important demands were placed on them, such as learning English and adapting to a new school.

Parental Support. Feelings of dislocation and loss of familiar networks often contribute to immigrant acculturation stress. Yet, feelings of continuity can serve as a protective factor (Beardslee 2002). This is especially true for youth whose families experience financial struggles, where parents are not available to help children in their transition because they may be working several shifts to make ends meet, or having difficulties themselves in the adaptation process (García-Coll/Magnuson 1997). Several respondents, specially the girls who migrated as early adolescents, expressed that at some point they wanted to return to Colombia because they were unhappy. This idea of returning was more a wish than a realistic expectation, because their parents, who had undergone enormous sacrifices to bring their children to the U.S., were not supportive of having them go back to Colombia. Parents often worked extended hours and youth had to adopt adult roles to help their parents, which further constrained their abilities to engage in after-school activities. Lina felt especially frustrated and limited because she had to take care of her brother after school while her mother worked until she joined ColDance.

It's funny, at the time I got involved in ColDance, I was thinking about going back to Colombia. I was fed up… I couldn't do what people my age did… I was so depressed for not having friends and school was boring, so I thought [joining ColDance] would be a good way to go back to the way I used to be: concentrating in music, having friends with similar culture and beliefs as mine, or at least from the same country. *Lina*

Similar barriers to participation, such as home chores or babysitting, among Latinas have been found in other studies (Borden et al. 2005). However, according to these youth, having a responsible adult as the director and an all-Colombian group helped parents make the decision to support them. In fact, Lina's mother and stepfather decided to change working schedules so she could participate in the group. Interviewees also referred to parents feeling proud that their children were engaged in something that demonstrated the positive side of Colombia, were doing productive activities, and were not out on the streets engaging in risky behavior. Oscar talked about each of their mother's views on their involvement in ColDance.

She went to all the performances. She related to the mothers of the other participants a lot. They had parties, a lot of parties. So, my mom was also part of ColDance's moms, which was a separate group. *Oscar*

But parents and relatives were not only supportive; they also played instrumental roles in ColDance, for example the group started rehearsing in the basement of one member's uncle; parents were chaperones on field trips; one mom did the flower arrangements for one dance; and parents were the main promoters of each show. At the cultural level, the activities in which youth participate are very important, because it is through them that cultural values are transmitted (Weisner 2002). By strengthening youth's social support network based on a common ethnic heritage, ColDance seem to have become one of those activities that were desirable to youth and perceived as consistent with parental goals.

Ethno-Cultural Maintenance: Learning about Colombian Folklore

ColDance allowed members to keep a connection alive with Colombia by providing them with opportunities to learn new information in terms of traditions, costumes, music, history, and dances. As mentioned earlier, resilience studies have recognized the protective role that being in touch with cultural traditions has played for ethnic minorities since this knowledge can become a source of pride (Benson 1997). This is illustrated in Carmen's response to how she felt dancing folkloric dance.

[Dancing Colombian folklore] was very special… when I joined ColDance the only things I knew how to dance were *salsa* and *merengue* and things like that. I might have heard of *the Sanjuanero,* which is the most traditional one, but I had never heard of a *joropo,* neither a *guabina*, or a *cumbia*, or any of those dances… It was super, to be able to learn something that I thought I would probably never hear, see, or learn. *Carmen*

Perhaps Carmen would have learned those traditional dances at school had she stayed in Colombia; she certainly would have heard of them somewhere. Yet, being exposed to this aspect of Colombia that she didn't know, all while living in the U.S., gave her a deeper understanding of her cultural heritage. In effect, learning about Colombian culture came from active engagement by youth, who were asked to do research about Colombian traditions and were put in creative roles that included cho-

reographing dances and designing costumes and sets. Having a voice in the creative process gave youth the opportunity to make personal connections to their cultural traditions.

[ColDance] was very different [from other dance groups]. 'Go do research in any book, find things about this or that city in Colombia, look for the things they did in La Guajira [Colombian northern region].' *Carmen*

By focusing on Colombian history, ColDance oriented youth's ethnic identity transnationally so that meaning of their ethnicity was not only understood in relation to how Colombians were perceived in the U.S. (ethnic orientation), but also in relation to Colombian history from their native country's viewpoint (transnational orientation). This aspect of ColDance was particularly valuable because, most of them had not visited Colombia since they migrated due to their lack of documentation.

Cultural Anchors of Conflicted Identities. When youth talked about feeling proud of being Colombian, they often incorporated the cultural learning taking place in ColDance into their identities. This was particularly true for Angela, who came to the U.S. when she was five and, of the interviewees, was perhaps the most "Americanized." She preferred speaking English, most of her friends were "white," and she was dating a "white" American boy. Although she described herself as "one hundred percent Colombian," during the interview it became evident that she felt conflicted between her Colombian and American values. This was further exacerbated by instances when she was accused of being a "fake" Colombian by other Colombians outside ColDance, which greatly distressed her.

When you are outside of ColDance, when you are, like, in high school, people just look at you making fun, and I'm, like, 'I think I'm even more Colombian than you are, cause I'm out there showing people where I'm from, and you are just making fun of people that are not.' […] Instead of making fun of them, show them why you are so proud of who you are. And that's what ColDance did. *Angela*

Her participation in ColDance functioned as a shield against the accusations about the authenticity of her ethnic membership. ColDance was very important to her because it allowed her to feel proud of being Colombian and connected to a group of Colombians who accepted her, despite her degree of acculturation.

Cultural Self-Efficacy and Talent: "I Can Dance."

Studies of human agency describe the kinds of belief systems that can mobilize people to act, such as a sense of self-efficacy (Bandura 2001). Self-efficacy is very important not only because it can influence the choice of and persistence in challenging activities, but also because it can have a positive influence on an individual's well-being. Self-efficacy is promoted by four main mechanisms: (1) observation of others, (2) successful experiences as the result of practice and training, (3) persuasion or what others say we can or cannot do, and (4) positive affective responses associated with successful experiences (Maddux 2002). We argue that all of these mechanisms were in place in youth's experiences of dancing and performing in ColDance. Newcomers observed more experienced dancers in solo performances and were often taught by them. Their accounts reflect how they derived motivation to continue practicing from seeing the positive results of such effort and from seeing others' response

to their performances. Here Pablo describes an experience of success and associated positive emotions:

> We danced, so we said let's continue dancing, and also I saw that I danced once and it went o.k., and I didn't get like, 'oh, no I don't want to do it,' but instead like I said 'Wow I did it. I did it!' So then like I demonstrated to myself that I could do it, so then I said: 'let's do it again, let's do it! So that's why I stayed. *Pablo*

As Pablo's response illustrates, in ColDance experiences of success given by practice and various performances created a dialectical process whereby self-efficacy became both a source and the result of their involvement in ColDance: the more they practiced and performed, the more confident they became about their capacity to do it well; and the more confident they became, the better they mastered that skill by practicing. Dancing and performing had far reaching consequences for several ColDance participants. Pablo, for example, in addition to attending college, became a semiprofessional dancer who complemented his income by teaching Latin dances in nightclubs. This additional source of income and recognition became critical given his lack of documentation.

Dancing as a tangible skill and understood as a talent allowed these youths to feel proud and received recognition from it. As mentioned earlier, developing a talent valued by the self and by society constitutes a protective factor in the midst of risk factors (Masten/Reed 2002), including migration. Yet, to dance well, youth demonstrated incredible commitment to practicing several times a week and, sometimes, during the weekends when their friends outside of ColDance where engaged in other leisure activities. This commitment contrasts with the negative ways in which immigrant children, particularly undocumented youth, are portrayed in the media and in the political discourse as unmotivated and disengaged. Their contribution to bettering themselves, their communities, and making their parents proud often goes unmentioned.

Resistance and Agency: Teaching about Colombian Culture

The value of folklore was understood by youth within their larger context wherein ColDance became a means of changing the negative Colombian image by *teaching* non-Colombians about the positive aspects of their culture. An opportunity afforded by having many performances take place with non-Colombian audiences (in schools, universities, elderly homes, the annual show, etc.). Thus, ColDance constituted for these youngsters a vehicle of cultural resistance, and, more specifically, agency, in the sense that they were contesting the negative Colombian stigma by enacting a positive cultural representation of Colombia and of Colombian youth.

> ColDance [made us] proud of who we are. They went out and showed people, you know, we danced for American people who didn't know that Colombia was more than drug-dealing and kidnapping people. There is this cultural side that is beautiful. We are not just … drug-dealers and stuff like that. [We are] deep people who have values, who respect our culture, who are proud of our culture, and who express that every day. *Angela*

This passage is particularly illuminating for what it says about youth engagement in a more productive resistance, one that contrasts with other strategies that lead to the detriment of the stigmatized youth, such as school disengagement (Ogbu/Simmons

1998). This resistance consists of offering alternative cultural representations and attributes based on folklore, traditions, and positive youth behavior that can prompt the audience to examine their preconceptions. Ultimately, the goal is to broaden people's perceptions of Colombians. Carlos explains the meaning of folkloric dance with respect to a more agentic resistance.

Dancing Colombian folklore is more cultural [compared to modern dances], in that it is focused more on Colombian culture, and on teaching and educating people about it. *Carlos*

Carlos response and the overall group mission focused on changing Colombia's stigma illustrate how ColDance fostered an ethnic-oriented identity. It made youth aware of the particular ways in which they are positioned in the racial/ethnic U.S. landscape, wherein Colombians, and Latinos for that matter, have a social lower status (De Genova/ Ramos-Zayas 2003; Rumbaut 2009) that they refuse to accept. As reflected in youth's narratives, the power of ColDance in countering negative cultural stereotypes relies on promoting a sense of agency, whereby youth feel they are indeed creating new representations of what Colombia is about to those who are more familiar with its negative aspects. Because stigma constitutes a threat to the person's self-esteem, interventions that counteract those negative messages are crucial.

Positive Social Mirror: Loving to Perform and Performing to be Loved

One of the components of ColDance that youth felt it was most influential related to offering them the opportunity to perform for an audience. As such, public performances functioned as a positive social mirror that countered the negative views reflected back to them in other contexts. Performing to Colombian and non-Colombian audiences was critical for promoting a sense of self-worth derived from their positive interactions with the audience.

There were times when, for example, we went to a festival in Pasadena; oh, I'm never going to forget this! And over there it was the first time we danced the *salsa*. And I remember that that day the people were even asking for our autographs. In the program they had put our pictures and we were like signing autographs, I could not believe it… Can you imagine? *César*

The audience's applause and reactions embody recognition by the other, the mirror. Through the audience, youth recognize themselves positively beyond the more personal context of relationships. This process can be both personal and impersonal: impersonal, in that the audience does not necessarily know the performers – their histories, their personalities, their unique selves; and personal, in that the applause is aimed at the performers directly, at their dances, their movements, their expressions. The impersonal aspect of performance can be especially positive for youth who have a negative self-image of themselves in other domains. This mirroring process is closely connected to their ethnic background given the focus on Colombian folklore. According to Oscar the most meaningful part of participating in ColDance entailed,

feeling appreciated by the public… wearing a hat, an *alpargata* (espadrille), a machete, that's what I liked most, but what I'm always going to remember is the affection of the public when they applaud you. *Oscar*

Getting a positive response from enacting Colombian history and folklore, as Oscar described, is a very visible way in which others acknowledge and value youth's cultural heritage. Another dimension of the social mirror came from the role youth thought ColDance played for the members of the Colombian community, who attended the performances. These youth described how many Colombians, due to financial constrain or lack of immigration documentation, do not return to Colombia for long periods of time and long for familiar places, music, and cultural activities.

> Culture is something we have to maintain, including the [Spanish] language and the customs… so we were trying to maintain that. When people saw us performing a *Sanjuanero* or a *Cumbia* it gave them the shivers, because it had been a long time since they saw them last, not even on T.V. *Oscar*

For other participants, including Oscar, contributing to maintain Colombian culture among their co-nationals through ColDance was extremely important. A Colombian audience is very receptive to their performances and this is not just out of an obligation to support a group of children engaged in a positive activity. Youth narratives revealed that for Colombians in the audience, their histories, hopes, and fears intersect with those of the young dancers on the stage. This encounter brought about self-reflection and understanding in both parties, and the intensity of the experience was heightened through the ethnically specific content of the performance. The audience "gets the shivers" and cries and youth reflect on who they are, becoming more proud of their own culture. Participation in ColDance, as described by interviewees, lead to the co-construction of identities wherein others – Colombians and non-Colombians, peers and adults alike – play a role.

> In ColDance I noticed that [Colombians were proud]. 'Cause you go to these shows, people would be just ecstatic that they were meeting these kids who were dancing, and being proud of being Colombian, and you know they loved it. That even though you are a kid you are still proud of where you are from. So I loved it. *Angela*

Just as importantly, ColDance offered a legitimate space of recognition wherein those without immigration documentation could inhabit. There are few spaces where undocumented youth are acknowledged or where their right to participate is not questioned. They talked about painful experiences related to their migratory status, such as being turned away from jobs or opportunities to which they qualified otherwise. However, not once during their telling of their experiences in ColDance did they talk about their migratory status as an impediment for participation. We posit that ColDance's public performances provided the space where youths' immigrant documentation status became less consequential and where, instead, they could still gain legitimate recognition for their personal and group achievements as Colombian dancers.

4 Discussion and Conclusions

Ethnically specific programs are a significant, but understudied OST modality. This research provides an important advancement to the understanding of ESPs by offering a framework that outlines possible functions and underlying mechanisms that

may contribute to positive identity development among long-term participants. In light of youth's narratives, the analyses suggested the following: First, while respondents were well aware of the negative stereotypes associated with Colombians, this negativity did not seem to affect the positive feelings associated with their ethnicity. In fact, those same stereotypes contributed to their motivation to actively participate in ColDance in order to change them. This is probably not unique to the Colombians studied here. Programs like ColDance are common among community-based youth organizations that articulate their mission in relation to negative and hostile environments that depict the youth they serve as deficient. Yet, little attention has been paid in the OST literature to this ethno-cultural dimension. Contributing to this gap are the ways in which program modalities tend to be assessed, which fail to differentiate between ESPs and more general arts or performance programs. If we are to understand how youth's ethnic background plays a role in OST participation, both the type and content of their activities, as well as their awareness of how people from their ethnic background are perceived need to be examined.

The findings also bring to the forefront the ways in which ColDance addressed some of the challenges experienced by these immigrant youth, such as the need to experience a sense of continuity in the face of multiple losses. Providing cultural brokers who connected newcomers to different resources and activities that were integral to their sense of self before migrating proved invaluable. ColDance also seemed to have strengthen youth's relational networks by connecting them with other Colombians in the community. Consistent with the limited research on ESPs, youth reported that the ethnic focus facilitated parental support. Parents became invested in ColDance and were proud of their children's participation. Given that parental support for youth OST participation is often necessary, especially, among immigrant and low-income youth (Simpkins et al. 2011), examining this ethno-cultural mechanism from the parents' viewpoint needs to be further studied. However, this study does shed light on how ESPs may support positive adaption and possibly lessen the acculturation stress that can be experienced in the process of migration.

While a causal connection between the positive identities and participation in ColDance cannot be established, ColDance focus on their ethnic culture may have allowed them to explore their ethnicity in a safe space. Doing so during a developmental period characterized by questions about *who they are* can contribute to achieved identities anchored on specific knowledge about their cultural background and supported by real talents. This can be particularly valuable for youth, like Angela, whose conflicted identities can make them vulnerable to feeling that the ethnic aspect of their identity is in question as a result of rapid acculturation. In this sense, this article sheds light on *how* ethnic identities might be shaped through long-term participation. However, it is limited on whether these mechanisms may have led to this long-term involvement or on clarifying whether this was a self-selected group. However, that this program was focused on Colombian culture may have contributed to the particular ways in which these youths conceived of their identities as Colombians.

ColDance also contributed to fostering both ethnically and transnationally oriented identities in these youth. Youth motivation to respond to the negative stereotypes revealed their awareness of the processes of racialization, wherein Colombians are constructed as ethnic minorities in the U.S. associated with drug-trafficking and violence. At the same time, ColDance allowed them to be transnationally oriented

by promoting a personal connection to Colombia's history and traditions. This supports Louie's (2006) argument that symbolic and emotional transnationalism do not require individuals to engage in activities, such as traveling to the homeland. ESPs may play a role in making youth be rooted in their homelands, but buffer the effects of negative stereotyping where they live.

Youth identities were not necessarily without complexity. They not only felt very positive about their ethnicity, but were also critical of the ways in which Colombians in Colombia and in the U.S. can be classist, racist, or close-minded. Hence, conceiving of ethnic culture as a source of strength does not mean that it should be treat it uncritically and regarded as a static and essential trait held by individuals or entire ethnic groups, and good in all respects. Instead, ESP practitioners should encourage youth to examine their cultural background with critical lenses and draw on the positive aspects only. Not doing so, may actually hinder positive intergroup relations where asymmetries exist fueled by nativistic views of their own ethnicity. In fact, some youth did conceive of their Colombian ethnicity in a more static way and had difficulty allowing non-Colombian youth into the group when the group opened up to non-Colombians after the second phase of the study took place (see Pineda 2014 for an extended discussion of ethnic boundaries in the context of this ESP).

Research on ESPs would benefit from conceptualizing ethnicity and ethnic identity as "works in progress" that are deeply shaped by the contexts in which youth are embedded. As illustrated here, youth participation in this ESP informed the way they felt about their ethnicity by instilling a sense of pride in their ethnic background and cultural traditions.

Given that the goal of the study was not to generalize to other populations, the findings should be interpreted cautiously. The focus on long-term participants opens questions about youth who did not engage in the group and their reasons for leaving early in the process. While the sampling strategy aimed at including diverse perspectives, it was not intended to be a representative sample either, so the findings should not be generalized to all youth in these types of programs. Future studies would benefit from longitudinal approaches to the study of long-term participation. The framework proposed is a first step towards focusing attention to the possible mechanisms and ESPs ethno-cultural components that contribute to long-term involvement and the development of positive ethnic identities. This framework can guide large scale studies of ESPs to replicate these findings among other ethnic youth.

Doris Sommer argues that "where structures or conditions can seem intractable, creative practices add dangerous supplements for intervention and locate room for maneuver." (2006, p. 3.) ESPs afford legitimate spaces – often among the very few – wherein disenfranchised immigrant youth receive positive recognition. Youth public performances create the "wiggle room," as Sommer would say, where audiences are prompted to revise their preconceptions of Colombians and suspend their views on undocumented youth. Even if unintended, the audience contributes to the construction of strong positive identities, and youth exert their agency by unapologetically inhabiting that space. To conceive of these youth's performances as agency and resistance is to hold the mirror back to the same audiences that can be at times judging of their immigration status. Youth agency takes, literally, center stage.

But while the benefits of ESPs cannot be overlooked, neither can they be overstated; for youth are immersed in a larger context of long-entrenched structural barriers. Even though all the respondents graduated from college or where attending

one, some of them, especially the undocumented ones, talked about shattered professional aspirations (e.g., getting a scholarship to later find out it was withdrawn or not being able to get a license to practice their profession) and the very realities of having limited opportunities. Without structural changes, ESPs will be limited at best in supporting this youth in an increasing anti-immigrant context that refuses to acknowledge both the talents they have worked hard to develop and the ways they have remained committed to bettering themselves and their communities. Educators and policy-makers do well aligning their efforts to change the conditions in which these youth make the transition into adulthood.

By focusing attention on a program that assumes youth ethnic heritage is worth preserving, rather than dwelling on what youth are lacking, we aim to reframe the discussion about the role that ethnic culture plays in OST programming and theorizing. Consistent with a body of literature detailing the positive effects associated with achieved ethnic identities (Phinney et al. 2001), youth's connection to their cultural heritage should be seen as desirable and necessary for positive adaptation in and of itself. We believe that programs that see youth's cultural heritage in this manner are more closely aligned with positive youth development principles that assume all youth have strengths and the potential for healthy development (Lerner/Dowling/Anderson 2003).

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Extended Education in Switzerland: Values in Past, Present, and Future

Marianne Schüpbach

Abstract: It is only in recent years that extended education has been a topic of broader public interest in Switzerland. The impetuses for extended education were changes in social and family conditions, and PISA 2000. In 2007 under the HarmoS Intercantonal Agreement on Harmonization of Compulsory Schooling in Switzerland, all cantons that adopted the HarmoS Agreement are obligated to provide extended education offerings meeting the needs of children and to introduce canton-wide core times. The developments in recent years in two trailblazing cantons – Basel-Stadt and Bern – presented as examples will most likely show the way forward for the further development and expansion of extended education across Switzerland. This means that in the future, in addition to quantitative expansion there will probably be a main focus on qualitative expansion of extended education. In a long-term perspective, there may be a development in the direction of all-day school scheduling for all students: schools with all-day hours as the normal case.

Keywords: Extended education, all-day school, development, value, Switzerland

1 Introduction

It is only in recent years that extended education has been a topic of broader public interest in Switzerland. Until recently, the traditional family model was prevalent, and women took on most of childcare responsibilities, staying at home or working only part-time for at least 10 to 15 years after the birth of the children. For childcare purposes, then, mothers were always available. Up to about 10 years ago, in the education system in Switzerland, aligned with this family model, kindergarten and primary school schedules had short morning and afternoon hours of school instruction. The starting and ending time of these hours of instruction varied daily for each child, and the children went home for lunch. In connection with social and family change as well as demands from the economy for qualified employees and women's increasing participation in education and the work force, pressures have grown over the past few years for new school schedules and for a realignment of the interplay between family and educational institutions. Some changes have already been implemented, and an expansion of the public mandate for education is under discussion.

In this contribution I will retrace the time organization of the education system in the past and examine the changed social and family conditions as well as the Pro-

gram for International Student Assessment (PISA), which paved the way for change and the current situation regarding extended education in Switzerland. The examples of two trailblazing Swiss cantons will illustrate the development of extended education in Switzerland. Then, based on research findings on the effectiveness of extended education in Switzerland, I will look at the effect of extended education on students' academic achievement and socio-emotional development and examine possible compensatory effects of extended education. Can extended education meet the expectations in education and in the social area? Finally, conclusions concerning the value of extended education and the outline of some developmental prospects will be drawn.

2 Historical Overview: School Scheduling

Up into the nineteenth century, school hours at public schools in Europe were usually for the whole day with a noontime break (Lohmann 1965). In most cases, the hours of instruction were mornings from 8 to 12 and afternoons from 2 to 4; students and teachers went home for two hours at noon to have their midday meal with their families. This schedule corresponded to a large measure with workers' hours at the time (Ludwig 2005). At the end of the nineteenth century, countries differed in the development of school scheduling. In Switzerland, with a few exceptions, the traditional school hours were maintained. Until recently, the morning and afternoon hours were kept relatively short (especially in kindergarten and the first years of primary school), and the start and end times of the school day varied daily. Still today, students normally go home for the midday break. They have lunch at home and then go back to school on some afternoons. Younger children do not have school on some afternoons, and there is no school for all students on Wednesday afternoons (Schüpbach 2010). In other countries, such as Germany, school hours were changed to *Halbtagsschule*, or morning school. This was done taking into consideration children's employment on farms and in factories, which was still very common at the end of the nineteenth century. In addition, the distances to school were too far for children to walk to and from school four times a day (Lohmann 1965). This last aspect could also be another reason why in relatively small country of Switzerland, in which traditionally every community had its own school, the traditional school hours were maintained.

In the German-speaking part of Switzerland, there have been demands for the establishment of all-day schools, a form of extended education, since the 1970s and 1980s. Up until then, the elementary school, especially in the German-speaking part of Switzerland, had no child supervision or care tasks. Continuing for a long time and in part up to today, the traditional bourgeois nuclear family was/is the reigning model. Care is viewed fundamentally as a private (family) matter (Stohler 2008). At first the demand came especially from women's organizations, left-wing political parties, and alternative groups, which in Zurich, Basel, and Bern aimed to create legal foundations for the introduction of all-day schools. Further interest groups, such as groups in Zurich, Basel, Bern, Lucerne, and St. Gallen, founded all-day school associations and worked towards the creation of all-day schools. These groups de-

manded that the state support the family in caring for their children. For a long time, not all parents had the option or the willingness to care for their children full-time. In the 1980s a few all-day school pilot projects were eventually set up in Bern, Basel, and Zurich. Starting in the 1990s, the political positions in the all-day school debate changed. Now, in addition, more and more education policy commissions, large center/right-wing parties, trade associations, employers' associations and others proposed the development of extended education (Mangold/Messerli 2005).

3 The Impetuses: Changes in Social and Family Conditions, and PISA

Proponents of extended education benefitted from a certain change in attitude at the turn of the century. In recent years, the school has been under increasing pressure to adapt to the changes in society and especially to the changes of family situations. Through the course of the twentieth and the start of the twenty-first century, demographic change took place in Switzerland, just as in most other European countries. The population structure changed, and there were various instances of migration. But also the family underwent changes, such as individualization and pluralization of family lifestyles and changes in the life and family cycle, generative behavior, and family size. Relationships among the generations and the everyday life of the family continued to change due to the smaller family size. And importantly, in recent years, women have increased their participation in the education system and the work force (EDI/BFS 2008; Nave-Herz 2007). Today, the school can no longer wait for children from ordinary families to be "compatible" with the school but instead must, in future, create the foundations that will allow students to match the educational and instructional processes in the school (Helsper/Hummrich 2008). From an economic policy perspective, changes in school scheduling were also demanded for better reconciliation of family and work and thus for the creation of better opportunities for the labor force participation of highly qualified skilled employees and especially women (Schüpbach 2010).

Another impetus came from elsewhere. The results of PISA 2000, which tested the skills and knowledge of 15-year-old students in more than 70 countries, revealed considerable deficits in the reading skills of students in the Swiss education system and, in particular, weak performances by children in families with a low socioeconomic status and with an immigration background, demonstrating the great impact of social and cultural background (OECD 2001). The PISA results, which were lower than had been expected, made it clear that there was a need for action and provided evidence-based legitimation for long-needed educational reforms. Education reformers could use PISA as a window of opportunity to make corrections in the education system and legitimize reform goals (Bieber 2010). One of the reform goals was the introduction of extended education. In this connection, then, extended education is expected to meet educational expectations.

4 Extended Education in Switzerland

An overview

In Switzerland, extended education for school-age children and adolescents has been an important topic for about 15 years, now. Various models are found in Switzerland today in the schools, or, supplementary to that, provided by other institutions. Different terms are used for extra-family education and care services depending on the canton and in part on the municipality. In documents issued by the Swiss Conference of Cantonal Ministers of Education (EDK) and the Swiss Conference of Cantonal Ministers of Social Affairs (SODK), for example, the term *Tagesstrukturen* (or 'day structures' in English) is used. Day structures are defined as all extra-family care services meeting the needs of children and adolescents from birth to the end of compulsory schooling (or in special education to the age of 20) (EDK/SODK 2008, p. 1). Also, since the 1990s there has also been debate in the German-speaking part of Switzerland regarding introduction of region-wide, comprehensive core times (*Blockzeiten*), especially in kindergarten and primary school: With core times, all children have at least three and a half hours of instruction (or four periods) at school five mornings per week and in addition have school hours on one to four afternoons (EDK 2005). With this schedule, school starts and ends at the same times for all students, which is new. By structuring the school day clearly through core times, the aim is to make family childcare simpler but also to create better chances for nationwide development and establishment of extended education meeting the demand in Switzerland (EDK 2005). In 2007 under the HarmoS Intercantonal Agreement on Harmonization of Compulsory Schooling in Switzerland (EDK 2007), all cantons that adopted the HarmoS Agreement are obligated to provide (mainly fee-based) extended education offerings meeting the needs of children and to introduce cantonwide core times. The HarmoS Agreement came into effect on August 1, 2009, and 15 cantons have joined the agreement so far. In Switzerland, the 26 cantons[1] have the right to organize their education structures independently, but they are obligated to cooperate with the federal government on educational matters (EDK/SODK 2008). There are, therefore, no national guidelines on the organization of extended education. Some cantons have regulated extended education offerings in their cantonal public school laws; in other cantons, this is not yet the case. As a result of this leeway, different forms of extended education offerings are being set up across the cantons, and similar offerings are referred to by different names.

A study by Stern et al. (2013), supported by the Swiss National Science Foundation, provided the first overview of the provision of extended education in Switzerland and revealed that the availability of extended education offerings is relatively low. For instance, in school year 2009/2010 there were full-time care places for 8% of school-age children. This means that Switzerland is lagging far behind the goal (Barcelona goal of 2002, (European Commission 2013)) set by the European Union (EU) to provide childcare to at least 90% of school-age children. However, for Switzerland as a non-EU country, EU goals are not obligatory. Compared to the demand

1 There are 26 cantons (comparable with states in the United States) in Switzerland and 26 education systems. But because there are now intercantonal agreements in place, we can speak of one education system (Bieber 2010).

by the population, there are currently large gaps in provision in most regions. Moreover, there are large regional differences in the degree of provision. For school-age children, the cantons with the best provision are the Cantons of Geneva, Basel-Stadt, Zurich, and Zug. Providing the least extended education and care are the central and eastern rural regions (Stern et al. 2013). Nevertheless, there has been a massive increase in the number of offerings in the last 10 years. Since 2003, more childcare places have been created through the support of the Federal Law on Financial Support for Childcare (BSV 2014). From 2003 to 2013 19,580 new extended education places were created for school-age children (BSV 2014). It should be noted that according to the latest education statistics, in the school 2011/2012 there were approximately 900,000 students in compulsory schooling (pre-primary education ISCED 0, primary education ISCED 1, and lower secondary education ISCED 2A[2]). However, the average provision in Switzerland continues to be comparatively low. With the cantons having supreme authority in the area of education, there are, in part, striking differences among the cantons and regions in the extended education coverage.

In the following, I will illustrate the developments of the last 15 to 20 years taking the examples of two cantons – Basel-Stadt and Bern – that have a pioneering role in extended education. The cantons were chosen based on their socio-demographic profiles. I chose a city canton with a strong economy and a canton with a rather weak economy and a (for Switzerland) relatively high percentage of rural residents. The two cantons differ considerably with regard to several socio-demographic criteria: The Canton of Basel-Stadt is a city canton; the city of Basel forms its territory, and 100% of the population lives in the city. The canton comprises three municipalities, and the city is administered by the canton. Both in area and in population, the Canton of Basel-Stadt is one of the smallest cantons on Switzerland, with 187,000 of Switzerland's eight million residents living in this German-speaking canton. Bern is one of the largest cantons in terms of area and population size (900,000 inhabitants). The population is distributed fairly evenly between the city (63%) and the country (37%). The Canton of Bern is a bilingual canton; the majority of the population speaks German (85%) and about 11% speak French.[3] In 2011 in the Canton of Basel-Stadt the gross domestic product (GDP) was 178,000 U.S. dollars (USD), which is more than double the Swiss average of USD 84,000. This means that the Canton of Basel-Stadt has the strongest economy of all cantons in Switzerland (EDI/BFS 2014). In 2011 the GDP in the Canton of Bern was USD 77,000, which is below the average in Switzerland. Bern thus has a rather weak economy compared to other cantons (EDI/BFS 2014). The analysis is based on internal and in part published cantonal documents that were made available to me by the responsible cantonal authorities.

2 The International Standard Classification of Education (ISCED) is a statistical framework for organizing information on education maintained by the United Nations Educational, Scientific and Cultural Organization (UNESCO).

3 The remaining 4% speak other languages.

Extended Education in the Canton of Basel-Stadt

From Pioneer to Regular Offerings

Starting in 1998 in the Canton of Basel-Stadt, an approved "compulsory" form of all-day attendance (*gebundene Tagesschule*)[4] was introduced at one and then later at many locations with about 100 places; an all-day school is a form of extended education provided by the school. The canton had begun the introduction of core times at the primary schools in the school year 1995/1996, at kindergartens in 2001/2002, and at secondary schools in the school year 2003/2004. The new school scheduling with core times of school instruction in the morning was the first step towards extended education (Regierungsrat des Kantons Basel-Stadt 2001). In 2006 the canton changed its strategy from compulsory to the "open" form of all-day attendance (*offene Tagesschule*).[5] Since 2011 all schools in the Canton of Basel-Stadt have been required to have core times – fixed regular hours of school instruction – and in addition extended education offerings (*Tagesstrukturen*) that meet the demand (includes schools with extended education and extended education in the neighborhood (*Mittagstische*, or lunchtime care)) (Felder 2013).

Legal Foundations

In past years legal foundations have been created at different levels. Since 2005 the Constitution of the Canton of Basel-Stadt (Kanton Basel-Stadt 2005) grants parents the right to extended education. Since joining the HarmoS Agreement in 2010, the canton is also obligated to provide demand-based offerings of extended education outside the hours of instruction (*Tagesstrukturen*). Since 2010, the provision of sufficient offerings of extended education (*Tagesstrukturen*) based on educational principles has also been anchored in the school law of the canton. The 2011 Basel-Stadt ordinance on extended education (*Verordnung über die Tagesstrukturen*) also regulates the care of students that attend extended education, and the document also includes quality assurance regulations. The Department of Education sets out quality guidelines, and providers of extended education are required to assure the quality of their offerings. It also stipulates that extended education in the schools belongs under the schools' quality management. This means, among other things, that the quality of extended education offerings, like the quality of school and instruction, must be checked regularly through external school evaluations. The quality dimensions include educational approach, infrastructure and security, management/organization of extended education, extended education as place for learning and experience, interactions (staff person-child, child-child), nutrition and food culture, and communication and internal and external cooperation (Landwehr/Bucher 2013).

4 The compulsory attendance all-day school has fixed obligatory school hours in the morning and afternoon, in part rhythmized, for all students.

5 The open all-day school has fixed regular hours of school instruction plus optional offerings attended by a part of the students.

Extended Education Offerings Today

Extended education offerings in the Canton of Basel-Stadt today comprise extended education offerings in the schools[6] and also in the neighborhoods.[7] They include before-school care (only at the schools), lunchtime care, and afternoon care including homework help for children and adolescents in primary school and lower secondary school. The Canton of Basel-Stadt funds all offerings either directly (extended education in the schools) or indirectly through subsidies (lunchtime care) (Statistisches Amt des Kantons Basel-Stadt 2013).

Utilization of Extended Education

The offerings were greatly expanded in the neighborhoods from 2003 to 2010 and in the schools starting in 2007. In 2012 there were 477 lunchtime care places and 1,076 places available at schools with extended education, making a total of 1,553 places, which were utilized by 1,930 students (utilization rate per place 1.24). This difference between supply and utilization arises due to the fact that a place is mostly not utilized by a child every day in the week. The average provision – number of places in terms of the number of children – was reported to be 26% for the school year 2009/2010 (Stern et al. 2013).

Extended Education in the Canton of Bern

From Pioneer to Regular Offerings

As early as in 1992, the school directors of the city of Bern developed and approved regulations that allowed for the conducting of open attendance all-day schools. In 1997 the city council decided to introduce full-coverage provision of open attendance all-day schools in the city of Bern up to 2005 (Stohler 2008). As a prerequisite for full coverage expansion of extended education in the entire Canton of Bern, the school hours of instruction have been canton-wide core times since 2009. Since 2010, all municipalities have been required to provide extended education (*Tagesschulangebote*) as soon as there is a sufficient level of demand (Grossenbacher-Wymann 2009).

Legal Foundations

The law on compulsory schooling of 1992 (Kanton Bern 2012) already entitled the municipalities of the Canton of Bern to have open attendance all-day schools. The law on compulsory schooling of 2008 requires the schools to have core times and to offer demand-based open attendance, fee-based extended education offerings (the fees depend on family income, assets, and size).[8] In the Canton of Bern extended education is seen as an educational mandate. The municipalities are only required to offer extended education that is co-funded by the canton and are thus entitled to limit

6 Offerings under the direction of the school or in close cooperation with private providers.
7 Private providers mandated by the Department of Education.
8 To be provided by the schools themselves or contracted out wholly or in part to private providers.

their offerings if the demand is higher than the offerings that the canton co-finances. The ordinance on extended education (*Tagesschulverordnung*) of 2008 (Kanton Bern 2008) sets out the minimal requirements concerning quality standards, in particular concerning personnel qualifications, space requirements, and quality management. The director of extended education at each all-day school is responsible for quality management, which means that the quality dimensions are not set out in detail at the cantonal level. Like the Canton of Basel-Stadt, the Canton of Bern joined the HarmoS Agreement in 2009.

Extended Education Offerings Today

In the Canton of Bern extended education offerings and the schools take place under the same umbrella. All-day schools, daycare, and lunchtime care are subsumed under "extended education" (*Tagesschulangebote*) (Erziehungsdirektion des Kantons Bern 2009), which comprises one, several, or all of the following modular offerings: before-school care, lunchtime care, homework help, and after-school care (Erziehungsdirektion des Kantons Bern 2009).

Utilization of Extended Education

As the municipalities have been required to offer extended education since 2010/2011, many municipalities introduced offerings in that year. Since then, there has been an increase of only 5%. In the school year 2012/2013, 142 municipalities had 222 schools with extended education. At least half of the municipalities had no offerings, which means there is no or insufficient demand. At the same time, the number of students attending extended education offerings definitely increased (care hours: 2010/2011 to 2013/2014 (budgeted) increased 33%). In 2012/2013, 12,644 children were registered at a school with extended education, which is provision to 13% of all students in the Canton of Bern (Erziehungsdirektion des Kantons Bern 2014). For school year 2009/2010, in comparison, Stern et al. (2013) estimated the provision rate at 2%. Today, in the urban municipalities and agglomeration municipalities most schools offer extended education. This is also true of some large (in area) rural municipalities in the Bernese Oberland. However, in many other rural municipalities, extended education does not have to be provided, because the demand is insufficient (Erziehungsdirektion des Kantons Bern, 2014).

5 Value of Extended Education for Students' Development

In the following, we report on current research findings on the effects of extended education on students' academic achievements and socio-emotional development, and its possible compensatory effects in Switzerland. The aim is to examine the extent to which extended education can meet the educational and social expectations. In the area of studies on the quality and effectiveness of schools with extended education in Switzerland, initial findings are available. In the German-speaking region of Switzerland, the first study on this topic was conducted from 2006 to 2011; no findings

are available in the French and Italian-speaking parts of the country. The available investigation is the quasi-experimental longitudinal EduCare study (Schüpbach/Herzog/Ignaczewska 2013) funded by the Swiss National Science Foundation. The study investigated children ages 6 to 9 in the German-speaking part of Switzerland. In the study design there were two comparison groups: students at schools who attended extended education intensively and students who were at schools with regular hours of instruction only and who attended no extended education offerings. We assumed that an effect of extended education can only be expected if student's exposure to this type of education exceeds a minimum level; hence, we selected only those students whose participation in extended education was at minimum 7.5 hours a week (median of the total sample of extended education), spread over a minimum of three days. We referred to these students as "intensive participants" (N= 51). The sample comprised N = 295 students in 43 school classes at 35 primary schools in 11 cantons.

Effects of Extended Education on Student Achievement

Regarding the development of *mathematics achievement* from the end of Grade 1 to the end of Grade 3, analysis with latent growth curve models showed that after controlling for individual and family factors, students who attended extended education intensively gained more substantially in mathematics achievement than students who attended regular school instruction only. "Intensive participation" was defined as attendance in extended education offerings at least three days and for a minimum of 7.5 hours a week over a time period of two school years. Regarding *language achievement*, students who attended extended education showed more substantial growth in language achievement at the end of Grade 3 than students who attended regular school instruction only[9] (Schüpbach 2012). These results suggest that attending extended education exerts a positive influence on both mathematics and language achievement independently of gender, intelligence, or home environment. These findings of the EduCare study agree with the U.S. findings (Durlak/Weissberg 2007) and are even slightly more distinct than the latest findings in German-speaking Europe (Bellin/Tamke 2010; Kuhn/Fischer 2011).

Effects of Extended Education on Socio-Emotional Development

The EduCare study found[10] that there were no significant differences in socio-emotional development from Grade 1 to the end of Grade 3 between students who attended extended education and students who attended regular school instruction only[11] (Schüpbach/Ignaczewska/Herzog 2014). Compared with findings of investigations from other countries the EduCare findings are only in part in agreement. The results of the international studies are more positive (Germany: Fischer/Kuhn/Züchner 2011; Fischer/Kuhn/Klieme, 2009; United States: Mahoney/Larson/Eccles/Lord 2005).

9 Controlled for IQ and social background.
10 Estimating latent linear growth curve models with three measurement time points.
11 Controlled for gender, IQ, and social background.

Effects of the Educational Quality of Extended Education Offerings on Development

The EduCare study also found[12] that intensive attendance in extended education in Grade 1, or attendance in extended education *of high quality,* or both of these, resulted in a positive effect on growth in mathematics achievement (Schüpbach 2012). Intensity of attendance and educational quality also had positive effects on the socio-emotional development of students who attended extended education (Schüpbach/Ignaczewska/Herzog 2014).

Compensatory Effects with Regard to Low Family Promotion

Extended education is also expected to have a compensatory effect where there is low family promotion/stimulation of the child's development. Does attendance in extended education at the start of primary school compensate for low family process quality of the child's development and thus for primary disparities? In the EduCare study in mathematics achievement and language achievement, students with low family promotion who attended extended education did not catch up to the other students from the end of Grade 1 to the end of Grade 3.[13] Here there was no compensatory effect of the school with extended education in this group of children (Schüpbach 2012; Schüpbach/Herzog/Ignaczewska 2013). These findings are in accord with findings in Germany (Schründer-Lenzen/Mücke 2010); the findings in the United States for at-risk children are more positive (Lauer et al. 2006) than the EduCare findings for Switzerland.

6 Conclusion: Values of Extended Education in Future

A traditional family model prevailed for a long time in Switzerland. School scheduling could rely on the fact that the family was available to care for children practically around the clock. But due to changes in society and the family in recent decades, this was no longer the case, and the schools were forced to change school timetables. As described above, this led to the introduction and expansion of extended education in Switzerland, successively from the late 1980s and ever more rapidly in the last 15 years. Through the HarmoS Agreement (EDK 2007), all cantons joining the agreement were required to provide demand-based extended education offerings. HarmoS has pointed the way ahead for the development of extended education in Switzerland. But it must be mentioned that up to today only 15 of 26 cantons have joined HarmoS and are thus required to implement the guidelines. At the federal level the Confederation is granted no powers by the Constitution to set binding regulations concerning extended education; this is due to the political organization of Switzerland, a federal state in which the Confederation, the cantons, and the municipalities cooperate on a federal basis and according to the principle of subsidiarity.[14] The two

12 Multiple analysis of regression, using the option 'type = complex' in Mplus.
13 Controlling for individual background variables
14 This means that the federal government enacts legislation and has responsibilities only in matters that cannot be sufficiently achieved by the smaller political units. It is the cantons that have

examples presented above illustrating the development of extended education show that both in the city cantons of the Canton of Basel-Stadt and the Canton of Bern, which have a roughly equal urban and rural population, there has been a marked increase in the importance of extended education in the last 15 years. This can be determined based on the new legal foundations for extended education in cantonal school laws, the wide offerings, and the growing provision (which, however, differ, in part, between urban and rural areas) in this time period. The anchoring of extended education in the laws on compulsory schooling is also a declaration of belief in extended education as a part of educational provision. In the two example cantons, the new regulations also lay out quality guidelines. In the Canton of Basel-Stadt the costs of demand-based and full coverage offerings are largely borne by the canton together with the parents; in the Canton of Bern the costs are shared by the canton, municipality, and the parents. Beyond these two trailblazing cantons, however, it must be noted that legal foundations for extended education have not at all been widely created, quality guidelines are not binding everywhere, and in many cantons the (demand-based) introduction and expansion of extended education and the associated financial costs are left largely to the municipalities.

The developments in the past years reveal a development of extended education that is surprisingly fast for Switzerland. Switzerland's political institutions generally do not much foster reform, and they complicate and delay decision-making processes and reforms such as the introduction of extended education. It appears that particularly in urban cantons and regions, pressures for extended education became strong enough to bring about changes. This was helped along by the OECD PISA study, which as a window of opportunity for legitimation of various reform objectives provided an impetus for reforms. Precisely with regard to the deficits revealed by PISA, it was hoped that extended education could provide expanded opportunities for educational attainment and improve disadvantaged children and young people's educational opportunities and opportunities to participate in society. Not to be forgotten are demands by the economy for better reconciliation between work and family life and thus to improve opportunities for labor participation by highly qualified skilled employees and especially women.

The research on extended education overall and on effectiveness in Switzerland is still much in its infancy. Research interest increased in conjunction with the developments outlined above. This means that the implementation in Switzerland was at first not evidence-based. The findings that are now available can provide indications that extended education can fulfill certain of the expectations placed in it. However, there continues to be a great need for research in this area. Further investigations with larger samples and more differentiated analyses of educational quality and their effects and mechanism are needed for validation of current findings. Furthermore, it has to be taken into consideration that in this rapidly developing field of practice, further studies are needed. A new research project supported by the Swiss National Science Foundation called 'EduCare-TaSe – All-Day School and School Success?' is underway at the University of Bern (project start was March, 2013).[15] In the longer

supreme authority in matters of education. In the area of post-compulsory education (especially vocational education and training) the federal government and the cantons work together as partners.

15 http://www.educare-schweiz.ch/

term, it will be important to investigate whether extended education in Switzerland meet the economic and social political expectations.

Acceptance of extended education has grown in a number of (political) circles, although it is still seen more as a childcare service than as an educational opportunity. The developments in recent years in the two trailblazing cantons presented above as examples will most likely show the way forward for the further development and expansion of extended education across Switzerland. This means that in the future, in addition to quantitative expansion there will probably be a main focus on qualitative expansion of extended education, and extended education will be more and more recognized as an educational offering. In addition, unsystematic observations regarding schools that have offered extended education for some years now and that already have a high provision rate and high utilization suggest that extended education is an attractor. Once a certain percentage of students utilize extended education offerings, there is rapid progression towards full utilization. The greater the proportion of utilizers, the greater the pressure becomes for the rest of the students to utilize the offerings, too. Once utilizations rates near 100% on more and more days per week, in these municipalities they will raise the question as to whether for educational and organizational reasons, they should add to the open attendance form of offerings of extended education and also offer a compulsory form with a fixed group of students every day of the week. In a long-term perspective, this could mean development in the direction of all-day school scheduling for all students: schools with all-day hours as the normal case.

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Walk-and-Talk Conversations: a Way to Elicit Children's Perspectives and Prominent Discourses in School-Age Educare

Anna Klerfelt & Björn Haglund

Abstract: This article highlights the discourses of children and leisure-time pedagogues regarding ways the activity at two different Swedish school-age educare centres are mutually constructed. Two different topics are stressed: children's perspectives and school-age educare centres as a social and educational practice. Data was constructed through walk-and-talk conversations supported by photos from a digital camera. The results are described through narratives that depict the children's discourses in their school-age educare activity. The emerging discourses show that children's perspectives are met in several ways but also that their perspectives are, in some respects, ignored. These results have the potential to contribute by helping to make children's voices heard as a tool to change the social practices in school-age educare centres.

Keywords: Walk-and-talk conversations, school-age educare centres, children's perspectives, discourse, narrative

1 Introduction

In recent years, educational research has paid increased attention to children's opportunities and right to be heard. This has led some researchers to give children a more active role in the research process (Haudrup Christensen 2004). This transition of children's position in the research process is also in accordance with the Convention on the Rights of the Child since the convention emphasizes children's rights to express their opinions concerning issues that affect them and highlights that these opinions should also be respected (Einarsdottir 2010). Haudrup Christensen stresses the importance of taking a reflexive and dialogical perspective to be able to make children's voices heard. This procedure makes it possible for the researcher to enter children's 'culture of communication'. To acquaint oneself with this culture means to be in a dialogue with children and within this dialogue create opportunities for children to communicate their perspectives. Researchers have to take their point of departure from children's own perspectives and this differs from taking the departure from a child perspective. When Halldén (2003) explains the difference between children´s perspective and a child perspective she asserts that the researcher tries to

construct or ”catch” a culture that emanates from the child in the former perspective. The latter perspective is a perspective that works for the good of children or studies a culture that is designed for children.

The aim of this study is to construct knowledge about children's perspectives on the activity in their school-age educare centre. The analysis intends to compare how children and leisure-time pedagogues[1] talk about their mutually constructed activity with the purpose of revealing the prominent discourses in the studied educare centres. One argument for this point of departure is to get some insights through children's narrative, whether they put the same emphasis on school-age educare centre activity and the steering documents that guides the activity as adults do. From that argument it follows that research supporting children´s participation and voices could contribute to a deeper understanding of how social practice in, for example, school-age educare centres, is produced and reproduced and in that way develop the activity.

Previous Research

Only a few studies in the past decade have emphasized the content of the activities in school-age educare centres and what children do in these centres after school (Ihrskog 2006; Klerfelt 2006; Saar/Löfdahl/Hjalmarsson 2012). According to The National Agency for Education, (2007) the prerequisites for children to consider their activity in the school-age educare centre to be meaningful are that the activities are secure, fun and stimulating, with much time being spent on play and creative activity. The recommendations could be discussed as a construction that originates from children's own perspectives since it, for example, emphasizes that children's interests and experiences are important conditions for meaningful leisure time (Haglund 2009). Klerfelt (2006) asserts that the school-age educare centre is a discursive meeting place where children have opportunities to construct and negotiate cooperatively created symbols. There is also some research directed toward how children act while performing these negotiations (Dahl 2011; Evaldsson 1993), but our knowledge of the activities in school-age educare centres and children's perspectives of their everyday life in these institutions is still relatively vague.

Theoretical Points of Departure

From a social constructionist perspective, reality is constructed through the interactions of people (Berger/Luckmann,1967; Fairclough 2010). This implies that the social practice at school-age educare centres is a consequence of human conceptions and attempts to structure and categorize the activity. The participants, in this case leisure-time pedagogues and children, produce and reproduce everyday social

1 The profession name 'leisure-time pedagogue' was changed in 2011 into 'teacher towards work in leisure-time centres' due to changes in the teacher education. Besides leading the activity in the leisure-time centre the 'teacher towards work in leisure-time centre' is trained for working as a teacher in school for pupils in grade 4-6, in one of the practical/aesthetic subjects and as a home-economics teacher (see Klerfelt/Haglund 2014). Since the teachers participating in this study are well experienced and educated before the change in the education, they are called leisure-time pedagogues.

practices through mutual negotiations. They learn to handle the activities that are included (cf. Lave 1993) and settle the meaning of these activities through their interactions. Social practice is also embedded in historical and cultural contexts that structure activities and make them meaningful (Wertsch 1998). Social practices are a product of social systems (cf. Giddens 1984) with inherent power relations that continuously produce and reproduce themselves. Social practice, can therefore be seen as a discursive event that is shaped by, but also shapes, situations, institutions and social structures, suggesting that there exists a dialectical relationship between a particular discursive event and the situations, institutions and social structures which frame it (Fairclough/Wodak 1997, p. 258).

Besides social practice, practice also involves discursive practice. This aspect of practice shapes the way, or the ways, children and staff speak about the school-age educare centre and its content. Discursive practice is based on how staff interprets their responsibilities and the policy documents that describe the intentions for school-age educare centres. This discursive practice is also based on how the staff and the children understand their own positions as a leisure-time pedagogue or a child who participates in school-age educare centre activities (cf. Fairclough 1992; Fairclough/Wodak 1997). People in different social positions are often associated with differing discourses. This also indicates that subjects have different power relations.

In this study, prominent discourses concerning the activity in two school-age educare centres are analysed from the perspective of Critical Discourse Analysis (CDA). Fairclough (1992; 2010) claims that critical discourse analysis (CDA) "… looks to establish connections between properties of texts, features of discourse practice (text production, consumption and distribution), and wider sociocultural practice" (2010, pp.88-89). CDA also asserts that social order is historically situated. A prevailing social order is seen as socially constructed and is also sustained less by the will of individuals than by discursive constructions of reality (Locke 2004). A discourse could be seen as a particular way of representing a part of the world and it is important to theorize conventions that are underlying the various ways of representations (Fairclough 2010). These conventions could be described as the order of discourse, for instance the variety of ways different subject positions as leisure-time pedagogues and children speak of the school-age educare center. The order of discourse can be defined as the totality of the different discursive practices and the relationships between them. Since there are often different ways of representing the world there are also alternative discourses that often are competing (Fairclough 2003). The relationships between and within orders of discourse therefore involve different social conflicts and struggles since "some ways of making meaning are dominant or mainstream in a particular order of discourse." (Fairclough 2010, p 265). Knowledge gained from research concerning leisure-time pedagogues and children's construction of their everyday lives in school-age educare centres could contribute by initiating change and development of the social practices within these institutions (Fairclough 2010) to ensure good decision are made in the best interests of children.

2 Walk-and-Talk Conversations

We have chosen to talk with children to understand how the social practice in school-age educare centres is constructed. We have used a narrative method (cf. Haudrup Christensen 2004) to enable us to get close to the participants' perspectives. Through narrative conversations we tried to establish a dialogue about a mutually constructed object (Linell 1998). In a, so-called, walk-and-talk conversation (Haudrup Christensen 2004) the participant leads the researcher to different places and gives their account of them. This is a way to allocate, for example, a child's power to control the content of the conversation based on a posed question. This study takes this scenario one step further by abandoning conventional open-ended and none emotionally charged questions. This choice was made with reference to dialogical theory that suggests that agreement pertaining to interpreted objects is created in the interaction between the persons taking part in a conversation (Linell 2009). This means that in our work, children, leisure-time pedagogues and researchers were free to use emotionally charged adjectives and expressions. Our intention with this approach was to use emotion-based questions with the purpose of provoking the perspectives of both the children and the adults by creating space for them to define the situation. To be able to make these differences in perspectives visible the questions to the teachers where formulated with the purpose of addressing them in their position as teachers acting with responsibility. The questions to the children where formulated with the purpose of trying to enter children's 'culture of communication' (Haudrup Christensen 2004) to be able to listen to their voices and 'catch' their culture (Halldén 2003). This way of conducting the conversations was complemented by the use of a digital camera that the interviewee used to take pictures during the sessions.

Several researchers advocate qualitative methods for gaining insight into children's perspectives and we will present two early studies from Sweden performed by Rasmusson (1998) and Torstensson-Ed (1997), to give our own study a cultural and contextual background and to illustrate what kind of knowledge these methods can provide. Rasmusson (1998) asserts that using several different methods is predominantly positive for obtaining reliable knowledge through children. With the aim of describing adults' attempts to create good conditions for growing up in an urban environment she carried out a case study using compositions, diaries, drawings, photographs taken by the children, individual interviews, walks through the area together with children, and group interviews. 28 children aged 9–10 participated. Rasmusson found that there is agreement between the "perspectives thought out for the children" and the children's own perspectives with regard to the planning of the area with regard to the children's needs for service, health and safety, and opportunities for play. Also Torstensson-Ed (1997) is using a kind of walk-and-talk-conversation, when taking 23 youths on a round tour to their former day care centre and primary school and then interviewing them about their memories. The results of this study were combined with theory into a model for development and learning in context. It emphasizes the importance of quality relationships both to persons and to content in educational settings. Different patterns of relationships among small children change over time to a better quality in relation to peers than to teachers. Individual ways of handling changes and disturbances in relations, like bullying, are described. They result in relationships and values of different quality, showing that development can

go in different directions and must be put in relation to values in society. In line with Rasmusson and Torstensson-Ed, our ambition is to come close to children's relations and opinions about their everyday activities and we direct this knowledge to leisure-time pedagogues/teachers towards work in school-age educare centres and teacher students.

Design

Ten children aged from seven to eight, and three leisure-time pedagogues at two school-age educare centres, called The Silver Spring and The Metropolis, participated in this study. When choosing educare centres we looked for centres that could be labeled as ordinary centres, which from our perspective means group sizes of about 25 children/group, university educated teachers and well equipped locations. We asked the teachers to choose children that wanted to take part, could express themselves in Swedish and gave their own permission as well as we had their parents permission for their participation. The children were asked questions such as "What is the funniest/most boring/most beautiful/most dangerous place at the school-age educare centre?" The questions served as a basis to provoke vigorous discussions and thereby uncover the children's understanding of the activity. They received a digital camera and were encouraged to choose places and led the researchers to these places and then show and take pictures of the chosen place, or places they related to in response to the questions. The children and the researchers conversed during their walks and after the children had finished photographing. These conversations gave the researchers opportunities to acquaint themselves with parts of the children's everyday lives through the narratives that emerged. All walk-and-talk conversations started indoors but three of the children at the Silver Spring centre brought us outdoors. Five children from each school-age educare centre participated, but the data from two of the children from Silver Spring have been excluded since their walk-and-talk conversations indicated that they had considerable problems communicating in Swedish.

The same style of conversations and digital camera use was repeated with the leisure-time pedagogues. In these sessions, however, the questions were somewhat different since they were intended to direct them to describe their position as teachers who have the main responsibility for the design of the school-age educare centre activities. Questions asked were "Where are you the best/the most boring/the strictest/the most creative pedagogue?"

The two researchers were both present during the interviews but participated in different ways. Researcher 1 was responsible for introducing the child, or the leisure-time pedagogue, to the interview procedure and led the conversations. Researcher 2 made notes concerning the content of the conversation and complemented with follow up questions and additional pictures with a second digital camera. In total, the nine 'walk-and-talk'-conversations resulted in nine audio-recorded conversations and more than 200 photos.

Analysis of the Walk-and-Talk Conversations

The analyse procedure started by listening to the sound files. This part of the data was to some extent transcribed into two logbooks in order to get a general view of the material. All photos were numbered in relation to the interviews with the intention of coordinating all photos with the sound file content. All conversations and all photos were analyzed both question-by-question and informer-by-informer. The conversations and the photos from each of the school-age educare centres were analysed separately and were later studied together. The point of departure for directing the analysis was to find narratives that emerged from the walk-and-talk conversations and from the photos that were created to develop a picture of everyday life at the school-age educare centers. The analysis implied that the transcribed material was repeatedly read and discussed by the authors. The reading and discussions aimed at getting close to the participants perspectives, present these perspectives as narratives concerning the everyday practice and to find and discuss, what Fairclough (2010) labels as problems or wrongs.

Wrongs include injustices and inequalities which people experience, but which are not necessary wrongs in the sense that, given certain social conditions, they could be righted or at least mitigated. This might be, for instance, matter of inequalities in access to material resources, lack of potential rights, inequalities before law or on the basis of differences in ethnic or cultural identity (Fairclough, 2010, p. 226).

Each photo functioned as a reminder of the appearance of the discussed place. They also facilitated the interpretation of the transcribed material since the photos, taken and highlighted by the informants, made parts of the emphasized places discussed visible. The resulting narratives portray parts of the social practice at the centres and simultaneously describe the order of discourse, i.e. the variety of ways the leisure-time pedagogues and the children spoke of the school-age educare centre and its content (cf. Fairclough, 2010). The results will primarily deal with the discourses that emerged in the conversations with the children since it is above all the children's perspectives that are the focus of this study. The results of the conversations with the staff will be treated in a more synoptic way.

3 Results of the Walk-and-Talk Conversations in The Silver Spring and The Metropolis

First, we will present the places the children find fun, then the boring places, the beautiful places, and lastly those places they identified as dangerous. Both the names of the centres and the participants have been changed.

Fun Places

The children at The Silver Spring find it fun to spend time in the same places they find beautiful: the main room, the painting room and the drama room. But the children also took us outdoors. The school with its schoolyard and snow-covered lawns is connected to a small wooded area but is situated in the middle of a densely popu-

lated suburb. Nasrin and Irene declared that the most fun place is outdoors up on the hill. You can rock on the seesaw there or chase each other, girls and boys from the same class. You can go sliding there when there is snow. Another fun place outdoors is at the fence outside the pre-school. The pre-school is situated amongst the other school buildings and the fenced pre-school yard invites play. The pre-school children swing, have tricycles, play in a sandbox, chase each other or stand at the fence watching the older school children.

Researcher 1:	Why do you take a photo here?
Nasrin:	… it is fun to look at the children when they are playing.
Researcher 1:	Yeah … is it fun to look at the smaller children when they are playing over there?
Nasrin:	… Yeah …
Researcher 1:	Why is that fun?
Nasrin:	Because I used to look at my little brother when he is playing.
Researcher 1:	Yes?
Nasrin:	We can chat with each other.
Researcher 1:	Who do you think considers this to be most fun? You or him?
Nasrin:	My little brother … thinks that it is a lot of fun!

It is a great joy that a little brother exists in the everyday life of the school-age educare centre. Being together is important.

One place the children at The Metropolis found fun was in the main room where they performed activities together. Einar says that when you use clay, as with other materials, you do that together with other children and, besides making funny figures, it is the interaction with the others that makes this activity fun. Some other children described the hallway as fun because they played a table football game there. Tina spoke about this place:

Researcher 1:	Yes, and what is fun here at the table football game?
Tina:	Ehh, it is our play, we have balls and such things as we used to, we used to play with a lot of balls at the game and then we used to play matches against each other.

The idea of the game is that the figures that represent football players should hit the ball. By turning a rod back and forth the "football players" turn and are supposed to hit the ball into the opponent's goal. When Tina describes how they play it is evident that they design new rules. Usually they use only one ball when they play but it is also possible to reshape the rules by using many balls and in that way update the system of regulations. The limitations of the game are studied – what is possible and what one cannot do and how the rules can be adjusted to create a better and more amusing game. When the children define the social practice it appears as if, when they use the game, they get many opportunities to interact. The children use many different rules and possibilities to involve their peers since many children often want to play at the same time.

Boring Places

The children emphasized the importance of playing with other children. This also meant that the children avoided places they considered to be boring. Nasrin and

Irene showed us such a place and told us that "there are not many children who play here". Few children visited this space although there were tools to play with. These tools, however, were not considered to be fun to play with and this meant that very few children used this particular area for play.

Ossian had difficulties finding a boring place, but after some consideration he said that you could be bored all over the place, especially if you are waiting to go home to attend other activities.

When Emma is asked to show us the most boring place at the school-age educare centre she brings us to the kitchen. The kitchen is sometimes used as a place for children and teachers to sit down and talk in peace and quiet to sort out problems and conflicts between the children. Even though Emma thinks it could be useful to discuss things that have occurred she longs for her friends and would actually rather be with them.

Emma:	If … I perhaps … have done something or they perhaps have done something nasty to me. And then the one that has done something nasty to me sits at, at one side of the table and the other … the one that has not done anything bad at the other side of the table. Then the other one has to say like "I am sorry". /…/
Researcher 1:	Yes. Ehh … does it … does one usually talk about the things that have happened then, what really happened? Is it the truth?
Emma:	Sometimes, those who have sort of done something, they perhaps don't always tell the truth because they think that you get like tons of scolding. But then I used to, or the one that sits there across from me asks, or then, or we say that it was that, this and that. What the truth is sort of. But sometimes it can happen that they tell the truth. /…/
Researcher 1:	But you mean that it is possible, more often than not, to untwist the things that have happened? Or do you try to shuffle-off just to get about?
Emma:	You usu… usually want it to elapse quickly because you sort of want to do something else instead of just sitting there and talk.

Beautiful Places

Noah brings us outdoors to a fence and it is not obvious what makes this place beautiful. His explanation is required.

Researcher 1:	Hey… is there a place here at school, at the school-age educare centre that you find beautiful?
Noah:	At first it was because there were a lot of flowers. I cannot take pictures of that!
Researcher 1:	But we can visualize if you shoot a picture!

Noah takes a picture.

Researcher 1:	Where were the flowers?
Noah:	At all the buds, the bushes!
Researcher 1:	(With a low amazed voice) At all the buds? The bushes! Yeah!

We understood during the conversation that it was a lilac hedge he was referring to. However, on this cold winter day it extended its black, leafless branches to the sky. A child's perspective is not always obvious for grown-ups and you must, as an adult,

realize that you don't know their perspective and therefore you have to ask them to achieve their explanations.

The children at The Metropolis had no problem showing us several places they found beautiful even though the school-age educare centre was housed in a rather old and dilapidated building. It was, however, not the locality as such they emphasized as beautiful. Instead, they photographed paintings they had made and they took photos of several of the flowers on the windowsills of the centre. There were also artificial flowers made by the children attached to one window. When Ossian described what he considers to be beautiful, he could see beauty both in the genuine flowers and in the flowers the children had made by hand.

Dangerous Places

The children, for different reasons, avoid some places at the school-age educare centre. One reason is that some places are too rowdy. The football ground at The Silver Spring is one such place.

Noah:	Because always when it is football if one falls or if someone scores a goal they used to just start fighting.
Researcher 1:	Then they used to just start fighting.
Noah:	If something has occurred with this team or that team they fight.
Researcher 1:	What do the children do then?
Noah:	No, so there is just a child who fetches an adult … or teacher. I don't know.
Researcher 1:	And what happens when an adult appears?
Noah:	That person says that they have to stop.
/…/	
Researcher 1:	Do the adults usually participate in the game?
Noah:	No. There was a teacher who worked here and he used to participate but he moved to another school.

The interaction at the football ground often seems to be aggressive. Nasrin and Noah said that they usually take up and discuss troubles when they come to their classroom or their school-age educare centre and the children who have been aggressive have to say "I'm sorry" to each other. Such situations seem to take place during schooldays but in this case it does not look like the children discriminate between schooldays and time in the school-age educare centre. The children are given possibilities to raise issues that have emerged, but at the same time they describe that adults rarely participate in their football games. The teachers that might be outdoors when the children have playtime seem to be at other places at the big schoolyard.

The windowsills were places which the children at The Metropolis avoided. Some children said that it is dangerous to crawl, sit or play there. If you do, you risk crashing through the window and falling down to the asphalt schoolyard several floors down.

Ellinore:	It is the windows. Our teachers have told us not to sit in the windowsills because … even if the windows are closed you could sort of … -…eh, because even if the window is closed you could, it can break and … or something (slurred). It is dangerous.

Researcher 1:	Yes, you could cut yourself and fall out, yes? That's the way the adults think, yes? Because it is they who tell you that or is it you that…
Ellinore:	It is they who tell us.

Ellinore seems to be somewhat uncertain why the windowsills are dangerous but the staff has told the children that they are dangerous and she knows that you are not allowed to sit on them. The children have confidence in the staff and respect their wishes.

4 Analyses

The presentation of our analysis starts with a discussion of the narratives that emerged from the walk-and-talk conversations with the children. Then, we briefly discuss the narratives that were elicited during the walk-and-talk conversations with the leisure-time pedagogues. Finally, we compare these results with the intention to describe the order of discourse and in that way define the construction of the social practices.

Walk-and-Talk Conversations with the Children: Main Narratives

Some issues appeared as more interesting for the children than others which also meant that some narratives were prioritized in the analysis. The main narratives that appeared from the walk-and-talk conversations were: *Being together, Waiting is boring, Beautiful nature* and *Avoiding places.*

In the conversations the children gave priority to the possibility of forming friendships with each other during activities. This means that the first narrative, *Being together*, characterizes much of what the children expressed. Good-fellowship and the opportunity to be together with other children also affords prospects for sharing experiences and being acknowledged, while also offering opportunities to work with their social relations with other children in the same way as is described by Ihrskog (2006). The school-age educare centre, and the ongoing relation-work that takes place in this social practice, could, in that way, be an important arena for the children's constructions of identity. The children seem to negotiate and cooperate in a way that resembles findings in studies by Dahl (2011) and Evaldsson (1993). Parts of the school-age educare centres social practice are produced and reproduced through the creation of new rules for playing and therefore different opportunities for establishing friendship/fellowship and participation in different processes of learning are also possible.

The second narrative, *Waiting is boring*, refers to certain periods of time that include activities the children find meaningless or at least framed in a context they give lower priority to. This means that they have to wait before they can take part in something they would rather do and this waiting is considered to be a boring state. However, the reasons for why the children are waiting could significantly differ. It could, for example, be waiting to go home. It is important that children experience that there exists 'interspaces' in our existence (Qvarsell 2003). These interspaces are perceived as positive and an optional, not prescribed, span of time. The interspace

that Ossian describes is, however, perceived as negative mainly because of the fact that the content or more precisely the lack of content, in this period of time is not something he wants to engage in. He has not chosen to have nothing to do and therefore it is boring. Instead, he would have wanted to fill the interspace with fun content. These moments could perhaps, from the perspective of the staff, be seen as moments that have to exist in order to clear away board games, clay and other material, and to prepare the children to finish their activities before they have to leave. Waiting could also refer to having to participate in a staff-initiated discussion like Emma did. She wanted the discussion to end and just waited for permission to go out and play with her friends.

In the third narrative, *Beautiful nature*, the children informed us about objects, or items they produced themselves and items that in different ways they associate with nature in their descriptions of the most beautiful places at the school-age educare centre. There might be a relation between the things the children want to create, like the beautiful flower decorations at the windows in The Metropolis and nature. Children see the aesthetics of nature and want to reproduce it. Perhaps this is a clue for leisure-time pedagogues in their efforts to understand what children perceive as pointless activity and what they view as ingenious meaningful creation (Klerfelt/ Qvarsell 2012).

The last narrative that emerged, *avoiding places,* shows in the children's narratives through their reproduction of adult voices. It is dangerous to sit or play on the windowsills at The Metropolis. The participating children were recipients of the perspectives and advice of the staff concerning possible dangers. But some children at The Silver Spring also avoided the football ground. Regarding this issue, it is possible to connect to the National Agency for Education and their criticism of the activities available at school-age educare centres. The National Agency for Education asserts that there might be risks with handing over the main responsibility for the administration of play and games to the children. The National Agency for Education (2000) has seen patterns that, for instance, indicate a stereotyped gender behavior and that some children become prominent while others become subordinated when the adult is absent.

Walk-and-Talk Conversations with the Leisure-Time Pedagogues: Main Narratives

Main narratives in the walk-and-talk conversations with the leisure-time pedagogues were: *Creating a fellowship within the group*, *Conflict resolution* and *Introduction of creative activities directed to arts, physical education and play*.

Social processes are focused on both school-age educare centres and this is also the reason for the first narrative *Creating a fellowship within the group*. The leisure-time pedagogues described how they sought to create friendships within the group and in what ways they wanted to support their children's interactions. They also want their children to develop social competences. It seems as if children's perspectives are attended to but some aspects of the narratives about *Avoiding places* indicate otherwise. In the children's narratives concerning places they avoid, the voices of the staff are echoed. It is dangerous to sit in the windowsills. The staff tries to work in

the children's best interests and the children are sensitive to the adult's perspectives and warnings. It is, however, not only the places identified by staff that the children avoid. As mentioned before, they also avoid certain places within the school surroundings, the football ground at The Silver Spring, where trouble often arises in the absence of adults. In this case the adults ignore or are unaware of the children's perspectives. The leisure-time pedagogues, and other involved staff like school teachers, are not there. They are somewhere else.

In the second narrative, *Conflict resolution,* the leisure-time pedagogues stressed the importance of supporting children and trying to sort out any conflicts that have occurred (cf. Haglund 2004). Conflict resolution involves, besides trying to get the engaged children to be friends again, finding out what has happened before someone started to cry or became angry. The leisure-time pedagogues at both school-age educare centres considered conflict resolution to be interesting, but also necessary and meaningful. If they have an opportunity and find it justifiable, they sit down in privacy with the involved children.

The leisure-time pedagogues' last narrative, *Introduction of creative activities directed to arts, physical education and play,* was emphasized as a way to support children's social development. These activities are emphasized by the National Agency for Education (2007) and in this context are mostly used as tools to give children opportunities to take responsibility such as sitting down doing things together, and talking and having fun at the same time.

5 Discussion

The discourses that emerged from the walk-and-talk conversations with the children correspond in many ways with the discourses that emerged from the walk-and-talk conversations with the leisure-time pedagogues. The latter discourses are, however, at least in part, grounded in a perspective oriented at the child, i.e. a standpoint that matches Halldén's (2003) definition of a perspective that emphasizes an ambition to work for the good of children and in line with Rasmussen's (1998) formulation "perspectives thought out for the children". However, one question that arises is whether or not the leisure-time pedagogues' ambition to develop the children's competences, in certain situations, counteracts striving for a good fellowship within the group or if these components are possible to unify. In other words; is there a conflict between the child's perspective and the perspective that emphasizes the good of children?

The participating children seem to enjoy their school-age educare activities although the study also shows that from their perspective parts of their everyday life could be designed in a more beneficial way. The *Conflict resolution* narrative implies that the leisure-time pedagogues emphasize the importance of sorting out conflicts that have occurred and it corresponds with how Emma described the "kitchen conversations" at The Metropolis. Emma's narrative provides a description of a polite discussion. She can take the other person's perspective, to sit and be afraid of being scolded, but that is not what happens. The children meet up and are considered to be able to take responsibility for their actions, listen, and to sort out situations that have taken place. This way of treating children and conflicts is seen as the only opportu-

nity to give children potential to grow as humans (Jul./Jul. 2009). Emma described the importance of being together with her friends and this also corresponds with the leisure-time pedagogues' ambition to create a fellowship in the group. From the perspective of the staff, it is important that all children in the group are friends and can get along. This is included in the discourse that underlines *Creating a fellowship within the group* and if they feel that the friendships between some of the children is at risk they use the *Conflict resolution* discourse that, at The Metropolis, means that the children involved have to follow a leisure-time pedagogue to the kitchen and resolve their problems. These conversations are, from the leisure-time pedagogue's perspectives, important, but could, from the children's perspective, sometimes be seen as unnecessary. It seems as if when the two perspectives meet the adult perspective is the more powerful one. In other words, in the order of discourse (cf. Fairclough 2010), the *Conflict resolution* discourse is more powerful than the *Waiting is boring* and *Being together* discourses since the children accommodate their behaviour to the former discourse. They sometimes sit down sorting out problems though they would rather be playing with their friends. This is a relation that seems to be unnoticed by the leisure-time pedagogues. The *Conflict resolution* discourse is powerful and seems to be of great importance concerning how the leisure-time pedagogues interpret their mission and this discourse is therefore also important for how the everyday practice is constructed (cf. Fairclough 1992; Fairclough/Wodak 1997). The discourses initiated by the adults are superior to the discourses initiated by the children. Or to borrow the words of Anna Holzscheiter (2011) when she was discussing reconstructions of global childhood norms with considerations to the UN Convention on the Rights of the Child, power of discourse or discourse of the powerful. Following the tradition of CDA, she stresses the value of incorporating the 'social environment' into discourse analysis, since it allows the identification of specific sets of socially shared semantics within an institutional setting as well as accounts for specific interpersonal dynamics and exclusionary practices that expand and transform these semantics.

An issue that is more pronounced is found in the narratives concerning the football ground at The Silver Spring. Adults are important for children's education and in connection with other pedagogical activities regardless of whether or not they are teachers, leisure-time pedagogues or staff working in a dining hall. If adults are present, this indicates, from an adult perspective, that the activity is important and that they will strive for social control in the activities that take place. Since adults do not take part in the children's games at the football ground this activity could therefore be seen to be unimportant. In this way, the football ground becomes a space in this social system where the children are left on their own and to take responsibility for regulations and negotiations during games. Adults cannot always attend every activity but, concerning the football ground, the children explain that teachers and leisure-time pedagogues rarely attend this area. The consequence is that the rules and resources that structure the activities at the football ground produce a place that for some children could be a sanctuary since they are unsupervised while for other children it is a place to avoid since they feel unsafe. A reasonable way to mitigate the problem with children who feel unsafe should be to reconsider the adult abandonment of the football ground and start to see this space as an important area for constructions of fellowship, learning in the form of constructions of identity and being together. That adults regard their discourse as superior to the children's might

here have serious consequences and it is questionable whether the adults should not be at the football ground for the sake of the children rather than a taken for granted view of relating of relating to what counts as important in educational activity. Research that emphasizes children´s perspectives have the opportunities to reveal new perspectives concerning the activity, perspectives that might differ from a more powerful and well established adult perspective. Describing and discussing children's perspectives could therefore reveal existing power relations and, on the basis of these findings, mitigate the outcomes of these relations and in that way contribute to change and develop the everyday practice.

Finally, we want to discuss some methodological and theoretical considerations. Our point of departure was to give children opportunities to express themselves through a combination of two complementary devices; talk and photos. The purpose of using these devices was to be able to create a closer relation to the children and to deepen our mutual understandings. The photos complemented, focused and supported the conversations and constituted a source for asking additional questions when we had difficulties in understanding verbal explanations. The children seemed to consider our instructions somewhat surprising, thrilling and fun, and we believe that we have fulfilled our methodological intentions concerning giving the children space to define the situation and make their voices heard. At the same time, however, we have to take into consideration that we, as adults, created the questions. We have, through the narrative approach, also been able to enter into, and describe parts of children's 'culture of communication' (Haudrup Christensen 2004). Designing methods intended to give children power in researching their own lives is of great importance, but is also very complex.

Van Blerk and Barker (2008) hold that participation is a form of power and argue that it is essential to acknowledge and work with the power relations that characterize young people's everyday lives and that this also affects the creation of mutual participatory arenas with them.

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Values and Prospects of Extended Education: A Critical Review of the Third NEO ER Meeting

Sang Hoon Bae

In 2014, the 3rd meeting of the Network on Extracurricular and Out-of-School Time Educational Research (NEO ER), a worldwide research network on extended education, was held in Seoul, with the topic of values and prospects of extended education. This paper aims to conduct a critical review on what was presented and discussed during the meeting to examine what institutional features and educational outcomes extended education have occured and what will be happening to this area in the future. According to the presenters, extended education keeps increasing while the degree of popularity and pervasiveness varies across the countries and across the regions within these countries. The governments' policies and supports will be significant in shaping the roles and scope of extended education. In some countries such as Korea, it is considered to be on the institutionalization process competing with public schooling and shadow education. Given the pervasiveness and uniqueness in terms of its roles and activities, extended education is now becoming an important area of research.

1 Introduction

Education as a social institution has two different institutional characteristics. One is its persistence and resilience, meaning that the current system is a product of history and thus its institutional features and arrangements tend to remain unchanged despite the continued attempts to reform them (Tyack/Cuban 1995). The other is its evolutionary development aspect. It is now widely known that the education system is an open system which constantly interacts with external environments including economic conditions, political situations, and social needs. Furthermore, ongoing interactions with environments often leads to a new system hybridizing the old with the new and sometimes public needs with market interests. One example is *extended education*, which has been observed with the keenest interest by many researchers (Ecarius/Klieme/Stecher/Woods 2013). According to researchers (Bae/Jeon 2013), it is increasingly becoming institutionalized, playing a role of alternative educational arrangements and can be compared topublic schooling and shadow education.

This paper aims to investigate values and prospects of extended education. Considering its implementation with a variety of names and patterns across the countries, the current paper focuses on what has been presented and discussed at the meetings of the Network on Extracurricular and Out-of-School Time Educational Research (NEO ER), which is a worldwide research network with researchers and experts in

the area of extended education. Particularly, a critical review will be made of what was presented at the 3rd meeting of NEO ER held in Seoul, the theme of which was *values and prospects of extended education.* Before doing so, NEO ER and its activities are reviewed taking into account the research trend. Finally, the paper suggests implications for future research.

2 NEO ER and Its Activities

NEO ER, an international research network in the area of extended education, was formed in 2010 along with its 1st meeting at the Giessen University, Germany. A catalyst for the advent of NEO ER was *the International Seminar on Supporting After-School Programs* held in Busan, South Korea, in 2007 where many international scholars and experts shared experiences and knowledge on extended education. The theme of the 2010 Giessen meeting funded by the German Ministry of Education and Research was '*Extended Education: An International Perspective*.' Participants from eight countries – Germany, Great Britain, Japan, Korea, Netherlands, Switzerland, Sweden, and the US – presented the current situations, practices, and outcomes of extended education in their home countries. A product of the meeting was the book *Extended Education: an International Perspective, Proceedings of the International Conference on Extracurricular and Out of School Time Education Research* published in 2013 (Ecarius et al. 2013). Another contribution was the launch of *the International Journal for Research on Extended Education* (IJREE), which may be the unique international journal in this area – the 1st volume was published in 2013. During this movement, debates were made on how to uniformly and scholarly name a variety of extended education – e.g., all day schools in Germany, afterschool programs in Korea, out-of-school time activities in the US, etc. While considering the scope, contents, and institutional features of these activities, the conference participants agreed to employ the terminology e*xtended education*. However, further discussion may be necessary on what extended education means and covers.

In 2013, the 2nd NEO ER meeting – funded by the University of Giessen – was held again in Giessen. The topic of this conference was *Extended Education and Social Inequality*. Many participants (Bae 2013; Huang 2013) suggested evidence indicating that extended education contributes to improving equality of education particularly by offering additional educational opportunities to disadvantaged children and youth. Other experts (Stecher/Preis 2013), however, pointed out that there may exist the possibility for extended education to function as a vehicle for educational inequality and social reproduction because low income students cannot afford the expensive programs.

The 3rd NEO ER conference was hosted by Sungkyunkwan University, Seoul, in 2014 with the support of the Korean National Research Foundation and the Korean After School Study Society. With the theme of *Values and Prospects of Extended Education*, presentations were given about the cases of eight countries – Korea, Sweden, Taiwan, Switzerland, Germany, England, Japan, and the US.

The 1st meeting at Giessen and the 3rd meeting at Sungkyunkwan

Source: Photos taken by Benjamin Mäßer, Anna Klerfelt

3 Values of Extended Education

Characteristics of Extended Education as a New Educational Phenomenon

Throughout all the sessions of the Seoul conference, the in-depth discussions were mainly about the concept and key characteristics of extended education. Many participants showed a keen interest in what institutional features it has and what kind of functions it plays. Particularly, greater attention was paid to whether extended education differs from other kinds of educational practices and thus it can be an area of research to be studied.

With regard to this issue, Bae and Byun (2014), introducing the case of Korea, made it clear that extended education is distinguishable from public schooling and shadow education in many aspects. According to them, extended education, known as afterschool programs in Korea, has been emerging as the third educational institution that forms the nation's education system with the other two institutions – public schooling supported by the state and shadow education run by private, for profit institutions. Specifically, they mentioned that it offers a wide range of educational activities based on students' needs and is free from the national curriculum that the regular curriculum of all public schools has to follow. It was said that it is mostly taught by market-proven instructors at public places such as school buildings and community centers and thus it may offer quality but relatively inexpensive programs, which low income and rural students can afford. In addition, it was argued that extended education differs from shadow education of which the goal is to create profits by providing programs, mostly for the preparation for tests, which aim to respond to clients' needs in their own building and facilities. Like shadow education being institutionalized worldwide (Baker/Mori 2000), extended education also seems to be on the process of institutionalization in the Korean society.

To explain extended education in Sweden, Klerfelt (2014) presented the Swedish school-age educare center which about 83% of all children aged 6–13 years old attend. According to Klerfelt, its mission is "to create coherence in children's everyday

lives (p. 20)" and educational activities at the centers include not only 'education' but also 'care and play'. She particularly emphasized the process of meaning making as a part of children's activities at the centers and pointed out that this kind of unique activities which may not be subjects-based learning activities at schools needs to be preserved.

Extended education is also widespread and continues to be increased in Germany. According to Stecher (2014), while providing a wide array of programs and activities to students, extended education, particularly all day schools, became an integral part of the general education system in Germany. In his presentation, he defined extended education as follows.

> Activities and programs which are pedagogically intentionally designed and organized to facilitate learning and educational processes of children and adolescents not completely covered by school curriculum based learning and which aim at fostering academic achievement, success at school, or in general to accumulate cultural capital in the broader sense (Stecher 2014, p. 72)

Stecher and his colleagues also pointed out that extended education differs from the regular classroom teaching and learning in that:

- in some countries they are not taught by teachers (in the stricter sense),
- there is in general no performance assessment with grades,
- they are often organized in mixed-aged groups,
- they are usually subject to a low level of curricular requirement, and
- they often offer children and youths more freedom of choice than school (Ecarius et al. 2013, p. 8).

Social and Educational Outcomes of Extended Education

Undoubtedly, the greatest number of empirical studies has been conducted by US scholars and institutions to examine educational outcomes of participation in extended education, which is generally called afterschool programs in the US (e.g., Afterschool Alliance 2008). Huang and Tanaka's work (2014) presented at the 2014 meeting is an example. Conducting the cross-sectional and longitudinal analyses of large data sets on afterschool programs in California, they found positive outcomes of afterschool participation on student outcomes below. In order to evaluate the quality and effectiveness of after school programs they suggested a theoretical model.[1] The model consists of three factors – structure, process, and outcomes of the programs. The outcomes are divided into academic and youth development parts – academic outcomes are measured by variables of test scores and school attendance, while youth development outcomes are measured by variables of aspirations, fitness, behavior, positive social norms, and expectation of students.

Regarding the case of Switzerland, Schüpbach (2014) also found the positive effects of extended education participation on math and language achievements as well as socio-emotional developments in students. She added that intensive attend-

1 The Harvard Family Research Project (2008) also provided the outcomes of after school participation with four categories – academic achievement, social and emotional development, prevention, and positive health and wellness outcomes. In the German context, Fischer and Klieme (2013) suggested an evaluation model for extracurricular activities in the school.

ance and/or attendance in high quality programs led to a positive impact on the growth in math performance and socio-economic development of participants. Interestingly enough, however, no compensatory effects were found on math and language achievement for low income students.

Unlike the comprehensive studies of Huang and Tanaka (2014), Cheng's (2014) study was to examine the impact of participation in extended education programs on math performance of disadvantaged students. The extended education math programs that he examined were specially designed, employing remedial math learning materials, math tutoring programs, etc. Comparing the results of pre-test and post-test, he found the positive impact of afterschool participation on learning outcomes of disadvantaged students. Considering Schüpbach's work which showed contradictory results above, international comparative studies may be necessary.

Finally, the extended schools in England presented by Dyson and Kerr (2014) drew a lot of interest among participants. Employing the perspectives and national policies of the UK government, they explained two trends in extended education in England. The first is well described by "extension of the role of schools as means of tackling social and educational inequalities (p. 88)," while the second indicates that "all schools should offer access to extended provision as part of a fully integrated network of local child and family service (p. 89)." Highlighted was the case about one school serving the Waterside area, a typical disadvantaged zone in the North of England. They showed the model of the Waterside children's community theory of change, as a case of schools involvied in activities for students, their families, and the communities "beyond their core business of teaching the curriculum (p. 87)".

4 Prospects of Extended Education and Future Research

Extended education keeps increasing while the degree of popularity and pervasiveness varies across countries and across the regions within the countires. As shown in the case of England (Dyson/Kerr 2014), the government's policy and supports will be significant in shaping the roles and scope of extended education in future. In some countries like Korea, extended education is being considered to be on the institutionalization process competing with public schooling and shadow education (Bae/Byun 2014). Similarly, Klerfelt (2014) pointed out that although the collaboration between the school and extended education is important, its unique roles and activities should be kept. In this sense, '*schoolification*' of extended education, blurring the line between two different institutions, will be problematic. Finally, given the pervasiveness and uniqueness in terms of its roles and activities, extended education is now becoming an important area of research.

During the Seoul meeting, suggestions were given for future research. First, given the nature of extended education that is implemented with diverse functions, for various student populations, and in a variety of ways, further studies can be conducted to clearly define extended education. It is also necessary to examine its institutional characteristics and the relationship to public schooling. Second, future studies may be conducted to investigate the evolutionary development aspect of extended education. In some countries, there is a clear distinction between extended education

and shadow education, while in other countries, there is not yet. Third, participants suggested the importance of the international comparative research. Future studies may be conducted to find the current situations, the scope and target groups, and educational outcomes of participation in extended education in various societies. Finally, all participants were agreed that NEO ER as an international research network should play an important role in doing so.

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Generating Transworld Pedagogies: Reimagining La Clase Mágica.

Edited by Belinda Bustos Flores, Olga A. Vásquez, and Ellen Riojas Clark. New York: Lexington Books, 2014.

Reviewed by Richard P. Durán

La Clase Mágica as a growing and flourishing afterschool learning network has an origin. As an introduction to this volume and its themes, it is important to note that the UC Links network of afterschool computer learning sites – like its progenitor the Fifth Dimension network – has served as a continuous spawning ground for social design experiments that explore making learning culturally responsive to the lives of participants. The Fifth Dimension started with a canonical design featuring an imaginary wizard guiding afterschool club members through a maze consisting of rooms filled with intellectually challenging computer games. The Maze established the landscape of activity while the Wizard mythologized the program as a cultural system. As youths mastered games they received recognition for their growing competencies in the linguistic and cognitive skills required by games and were labeled "Wizard's Assistants." As the Fifth Dimension evolved into the present UC Links network, implementers have experimented with variations on the original core Fifth Dimension model, opening up the framing of site artifacts and activities so as to make them more meaningful to the everyday lives of youths. La Clase Mágica has led the way in this regard with some of the most ambitious and productive social design experiments that provide a culturally resonant, transworld *mythos* of activity mediating the disconnect that exists between youths' everyday experiences, linguistics and cultural resources, the growth and spread of technology affecting communication and learning, and the more narrow range of instructional practices encountered in traditional classrooms.

A Foreword by Kris Gutiérrez does an excellent job of exploring these historical contexts and then goes on to review the many creative accomplishments of La Clase Mágica, connecting these accomplishments to current theory and research in cultural psychology, the learning sciences, and related interdisciplinary efforts to create and implement social design experiments. The Foreword also does a fine job of overviewing the intent and contributions of the authors included in the volume.

The volume is organized into four major sections, clarifying the realization of its title as both a theory for how to implement culturally responsive learning through presentation of descriptions of site implementations. As discussed below these unique, but deeply interrelated, implementations embody key principles resonating

with the volume's inspirational title *Generating Transworld Pedagogy: Reimagining La Clase Mágica.*

Section I: Embracing a Transworld View

This stimulating section is made up of three chapters by Mayra Avidad, Ellen Clark, Belinda Flores, and Olga Vásquez covering four interlocking principles framing La Clase Mágica's transworld view of learning. These include: 1) attention to the dialogic method as central to learning via interaction; 2) Vygotskian notions of culture and human and social development; 3) bilingual/bicultural assets tied to asserting identity and consciousness of social justice issues; and 4) *cosmovisión* (cosmic world order) emanating from a living awareness of the "sacred sciences" drawing on the New World indigenous heritage of Latinos. The notion of "worlds" is opened up to include the many forms of consciousness associated with community members' encounters with worlds that constitute the day to day social and policy spaces that affect human interaction and self-identity. But beyond this, attention is given to worlds that constitute a grand *cosmovisión* drawn from the *Sacred Sciences* regarding the nature of reality. This is a unique contribution of the volume, and one that is important to foreground. The perspective reflects a quest for a unified ontology linking all forms of natural and cultural realities, including human evolution as generated by primal and still operative forms of energy transformation. These perspectives, e.g., are reflected in the mythic beliefs and literate practices of indigenous communities such as the Huicholes of Mexico. The cover art of the present volume drawn from a collection maintained by Vásquez is an excellent example of relevant imagery. Why should this appeal to *cosmovisión* be so important as a unifying theme to this volume?

The answer lies in the belief that the societal inequities encountered by Latinos underserved by the society in general are unnatural, and will be overcome by appealing to a deeper understanding of the human condition – one which reveals and makes accessible forms of energy and literacies that can cross and transform those inequities in worlds experienced by humans so as to into enter and sustain a more harmonious and balanced natural order among all worlds experienced by humans reflected in the totality of nature.

Particular attention is paid in the volume to the world of teacher preparation as a vehicle to implement transformative transworld pedagogies embodying the four principles via local implementations of the La Clase Mágica. These local implementations are centered on Latino Southwest communities of Austin, San Antonio, and San Diego, though attention is also additionally given to a Gypsy community in Spain to demonstrate the breadth of the La Clase Mágica approach. The local implementations in the Southwest all create and sustain learning communities, bringing young bilingual learners (*protégés*) together with college and university undergraduate teacher candidates (*aspirantes*) for the purpose of exploring learning and civic engagement mediated by technology in a culturally responsive manner.

Section II: Transcending Borders as Transworld Citizens

In brief, Section II consists of three chapters that discuss how implementations of La Clase Mágica intersect with educational policy worlds. Provocatively, Chapter 4,

by Patricia López and Angela Valenzuela, discusses how the Texas state legislative process in setting educational policies allegedly serving the interests of Latino and EL students actually ends up subverting implementation of progressive initiatives such as La Clase Mágica, because of anachronistic views of educational processes and what can count as sources of evidence of education outcomes (e.g., Standardized test scores). Chapter 5 by Lorena Claeys and Henrietta Muñoz discusses how the Edgewood ISD implementation of the La Clase Mágica was founded on developing a culturally responsive relationship between community families and the UTSA Academy for Teacher Excellence Program and the Making Connections Partnership program drawing on Latino values and folk wisdom. Chapter 6, by Patricia Sánchez, Timothy Yuen, Macneil Shonle, Theresa De Hoyos, Lisa Santillán, and Adriana Garciá, describes how a UTSA educational technology team was able to use their advanced information technology and programming team to re-invent the La Clase Mágica "*laberinto*" (maze). The electronic *laberinto* was organized into multimedia rooms/spaces celebrating familiar Mexicano/Latino cultural events, celebrations, and cultural artifacts that motivated students' engagement in site activities.

Section III: Enacting Transworld Pedagogies

This section of the volume consists of six chapters each describing in rich detail specific highlights of various La Clase Mágica sites that embody key principles associated with transformative transworld educational practices. Chapter 7, by Iliana Alanís, and Chapter 8, by Maria Arreguín-Anderson and Kimberley Kennedy, examine how mobile technologies help future teacher *aspirantes* communicate in a multimedia and culturally responsive fashion with other youth participants in Las Clase Mágica. Chapter 9, by Lucila Ek, Adriana Garcia, and Armando Garza, extends these concerns to examining how youth participants in La Clase Mágica at their sites use multimedia technology to establish their voices as community members, with multiple forms of literacy connected to their bilingual and new technology skills.

An important contribution is made in the following two chapters that go on to look even more concretely at particular kinds of reasoning and problem-solving skills connecting La Clase Mágica activities to social justice, and skills targeted by schools. Chapter 10, by Carmen Martínez-Roldán, discusses dialogic interactions between teacher aspirantes supporting student protégés who are engaged in reading language/arts and science learning--mediated by technology--in an afterschool La Clase Mágica setting, tying classroom learning objectives to site activities. Then Chapter 11, by Craig Willey, Carlos LópezLeiva, Zayoni Torres, and Lena Khisty, describes teacher candidate *aspirantes* and student *protégés*' learning of mathematics bilingually, in an afterschool site known as Los Rayos modeled after La Clase Mágica.

To end Section III, Chapter 12, by Margarita Machado-Casas, closes an important transworld pedagogies circle by linking schools, teacher candidate *aspirantes* and student *protégés*, to families and community members at large. It describes how La Clase Mágica activities in San Antonio support parents' and community members' access to technology, computers, and the Internet so as to make parents and community members partners with *aspirantes* and *protégés* in deep learning and literacy development, attuned to the four principles underlying implementation of transformative transworld pedagogies.

Section IV: Evolving for Innovation

This section closes the volume and presents a look ahead to the promise of La Clase Mágica as a base for progressive education transforming the learning and development of populations underserved by formal education systems. Two themes are pursued in this section. Chapter 13, by Beatriz Gómez-Estern and Olga Vásquez, explores the creative adaptation and successful implementation of the La Clase Mágica paradigm in the implementation of related sites in Spain, serving Gypsy community members in the Barcelona region, and in Sevilla in alignment with the four principles underlying transworld pedagogies. The key to this success has been to draw on the cultural traditions and resources of the populations served by these sites and to use technology as a tool for *conscientization* and community development. In the subsequent and closing final Chapter (14), Ellen Clark, Belinda Flores, and Olga Vásquez return to the importance of *cosmovisión* derived from indigenous sacred sciences as a root source for the wisdom motivating and enacted by La Clase Mágica sites.

Closing Comments

The notion of *cosmovisión* and the Sacred Sciences may strike some readers as a mystical, wishful pursuit of fantasy not deserving serious consideration as a foundational principle for education. Yet at the same time, the origins of cultural psychology as long ago as, e.g., Wilhelm Wundt, and the works of Jerome Bruner in more recent decades, have pointed to the central role of "folk psychology" as an important resource in human understanding of the nature of the human experience. It has also served as a strategy to cope with survival and social self-actualization. These understandings are arguably social constructions that have their own cultural historical evolution and social means of propagation across time and setting. The folk beliefs of the indigenous communities cited in this volume are of this nature. They exist and propagate among the descendants of indigenous communities and find shelter and nurturance more broadly in extended communities. They give meaning to life. They are alive in the communities examined in this volume, and serve these communities well as ongoing resources and tools for sociocultural self-actualization. This volume clearly delineates both the cultural significance and the instrumental power of this *cosmovisión* for the design and development of activities and pedagogies to promote learning among underserved youth.

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