Lourdes M. Cueva Chacón. ¡A la escuela! Identification of the information needs of Hispanic/Latino parents in North Carolina, and how school district's Web sites may address those needs: An exploratory user study. A Master's Paper for the M.S. in I.S. degree. August, 2005. 51 pages. Advisor: Barbara M. Wildemuth.

The Hispanic/Latino community is a fast growing and younger community in North Carolina. Therefore, we can expect that public service providers, commerce and professionals aren't familiar with their language, culture and information needs. As immigrants, Hispanic families face several challenges in their process of adaptation. The language, among others, is also a big barrier for Spanish-speaking parents to learn about, and get involved in their children's school activities, delaying and making more complex the adaptation to U.S. schools system.

Results of this study reveal that the information needs of the group studied are related to learning about the school enrollment process, the structure of the U.S. education system, and additional services provided at schools. Based on these results and qualitative data collected from Web browsing sessions with Hispanic parents, an effective Web site design oriented to the Latino community is proposed.

#### **Headings:**

Elementary and High Schools – Web sites

User studies – Hispanic/Latino

World Wide Web

Web Sites – Evaluation

# *¡A LA ESCUELA!* IDENTIFICATION OF THE INFORMATION NEEDS OF HISPANIC/LATINO PARENTS IN NORTH CAROLINA, AND HOW SCHOOL DISTRICTS' WEB SITES MAY ADDRESS THOSE NEEDS: AN EXPLORATORY USER STUDY.

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A Master's paper submitted to the faculty of the School of Information and Library Science of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Science in Information Science.

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Approved by

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# **Table of Contents**

Table of Contents	1
Introduction	2
Literature Review	4
Study Methods	9
Phase I – Interviews with education professionals	10
Phase II – Interviews with Hispanic parents.	12
Findings and Discussion	16
Findings from interviews with education professionals	16
Findings from interviews with Hispanic parents	23
Quantitative data from ranking	27
Qualitative data from Web browsing sessions	30
Summary and Conclusions	35
Notes	37
References	38
Appendix A: Interview guide for education professionals	40
Appendix B: List of topics/information needs	41
Appendix C: Interview guide and Web site browsing session for parents	42
Appendix D: Snapshots of selected Web sites	44

#### Introduction

The Hispanic/Latino¹ community is now the largest minority in the US (US Census Bureau, 2003). The growth of this community in North Carolina was 479% between 1990 and 2002 (Stuart, 2004), the highest in the nation. The shortness of the period shows that this community is basically new in the region. Therefore, we can expect that public service providers, commerce and professionals aren't familiar with their language, culture and information needs.

Research shows that parent involvement in their children's education leads to higher student performance (Dornbusch & Ritter, 1988). Salinas Sosa (1997) identifies logistical, attitudinal and expectation barriers for Hispanic parents. Among these barriers were uncertainty regarding their expected participation, and communication problems.

Another research study (Carnesi & Fiol, 2000) has shown that higher levels of parental involvement in immigrant communities could be beneficial to the parents themselves because they become more familiar with the public resources available to them and their children. I consider this aspect, awareness of public services and resources provided by schools, an important step towards

getting a higher parental involvement in the Hispanic community. Programs provided by schools, such as Before and After school, English as a Second Language (ESL), and other specific county programs, remain unknown to Hispanic parents or are used just partially.

In this sense, the use of the Internet as an information tool has a potentiality worthy of evaluation. This research study intends to evaluate what information a School District's Web site should contain in its Spanish version to address the information needs of Hispanic parents.

#### Literature Review

This literature review is broken down in three sections: identifying school related information needs of the Hispanic community in North Carolina, potential barriers to parental involvement for Hispanics, and using the Internet for overcoming these barriers.

Identifying school related information needs of the Hispanic community in North Carolina.

Studies related to the information needs of the Hispanic community in North Carolina are limited, probably because of its relatively young life in the area. In a study on reading interests done nationally by Cuesta (1990), a distinction between newly arrived Hispanics and settled Hispanic immigrants is proposed: newly arrived immigrants have special interest in learning English, reading Spanish language materials, and obtaining information about food, housing, medical and legal matters. As Hispanic immigrants become settled a change occurs as their reading behaviors become more varied and less oriented to survival. Rincon and Associates' survey (2000), prepared for the State Library

of North Carolina, revealed that the motivational factors for using the library among Hispanics in North Carolina were: to use books, to use computers, to complete school assignments and to borrow videos or cassettes.

Unfortunately, they included no conclusive information about the topics selected so it could be compared with the research done by Cuesta.

Holman (1997), an elementary school administrator at El Paso, Texas, suggests "proactive steps teachers can take to help Hispanic immigrant families make a successful transition to school." Among these suggestions are: provide a warm non-judgmental reception, schedule evening conferences to accommodate working parents, remove the language barrier by providing second-language instruction to teachers and staff, realize that some parents will lack formal education, recognize that economic survival is a primary concern for immigrant families, and familiarize families with your school's procedures and organization. These suggestions provide a description of Hispanic parents' main concerns or worries but only from the school's perspective — not from the parents perspective.

The U.S. Department of Education (2003) has developed documents to address parents' basic information needs regarding school achievement and activities. The most frequent questions asked by parents, in general, are: what should I do to prepare my child for school? What should I expect from my

child's teacher? How should I supervise my child's school homework? How should I participate more effectively with the school and teachers? How should I ensure a secure school and a school free of drugs?

All of the studies mentioned are starting points for understanding

Hispanic parents' information needs, which are expected to be somewhat similar
to those of other parents. However, additional research is necessary to identify
the specific pieces of information related to school enrollment and activities that
Hispanic parents look for.

Potential barriers to Hispanic parents' involvement in school activities.

According to multiple studies related to parental involvement (Henderson, Marburger, & Ooms, 1986; Villareal & Barnewell, 1990), there are three major categories of barriers to successful parental involvement: logistics, attitudes, and expectations. Sosa (1997) analyzed these barriers in the Hispanic immigrant community, finding that logistic barriers were basically associated with the lack of time that parents have because of their jobs, the pressure of a precarious economy, and difficulties in child care arrangements. Attitudinal barriers included uncertainty regarding their roles, responsibilities and rights related to their children's education; dissatisfaction with their "own capability to carry out home involvement activities" (p. 105); and communication problems with school

staff and teachers. For the two latter barriers, their limitation with English was to be blamed. Finally, expectation barriers are perceived when "parents feel themselves judged by their occupation, economic status, or group membership" (p. 106).

Recently research on the Southeastern Latino population reveals how these three type of barriers could become more severe. Kochhar, Suro and Tafoya (2005), based on the 1990 and 2000 censuses, found that:

"Hispanics in the new settlement areas of the South states are predominantly foreign-born (57%). The immigrants are mostly men (63%) and young (median age 27). Most of these immigrants (62%) lack even a high school diploma, and 57% do not speak English well or do not speak it at all. More than half of these immigrants entered the U.S. between 1995 and 2000, and most lack legal status" (p. iii).

Using the Internet for overcoming potential barriers. A survey conducted in 2002 by the National Center for Education Statistics revealed that 86% of public schools with access to the Internet<sup>2</sup> had a web site (a lower percent, 76%, was found in schools with the highest minority enrollments), and 68% reported that it was updated at least monthly. Sanchez (1998) describes a school district's Web site as a powerful tool that provides "around-the-clock means of communicating with parents" (p. 21) and other school stakeholders. Carr (2001) goes further, describing schools' Web sites as marketing tools; and Hardy (1997) considers that "another sign of a successful Web site is its ability to strengthen community

ties" (p. A38). Researchers, though, warn about overlooking basic communication rules (Carr, 2001), like defining the population that is the target of your Web site and designing according to this target population's needs and expectations.

In relation to the Hispanic community, a study released in 2001 by the Pew Internet & American Life Project found that half of the Hispanics who are 18 years old or older have used the Internet. The study also mentions a 25% increase in Hispanic users in a one year period (2000 - 2001). Another important finding is that "61% of online Hispanics have used the Internet for school-related research or job training" (p. 2). These findings suggest that Hispanic parents would be open to reading information about their children's schools through the Internet.

Several studies (e.g., Cuesta, 1990) comprise identification of general characteristics and behavior patterns of Hispanics. There are also studies (e.g., Sosa, 1997) that have identified barriers that prevent Hispanic parents' involvement in school activities. However, there is no specific study focused on school related information needs for this segment of the population in North Carolina and how these needs could be addressed through a school district's Web site.

## **Study Methods**

The question that is the foundation of this study is: **what content should** be considered for the Spanish section of a school district's Website to address the information needs of Hispanic parents? To answer this question the study was comprised of two phases. In Phase I, five professionals in education were interviewed on their experience helping Hispanic parents in the school enrollment process and participating in school activities. As a result of Phase I, a list of main topics was compiled. In Phase II, eight Hispanic parents were interviewed and questioned about their main concerns and doubts when enrolling their children and when trying to participate in school activities. They were also asked to rank the list generated in the first phase, to show their preferences. This two-phase approach was selected as a way to contrast the parents' perceptions of what they considered their main concerns or doubts with what they actually ask when being assisted by a school officer.

The following sections explain and describe the procedures followed for selecting participants, the motivations behind interview questions, and the final analysis of the data.

# <u>Phase I – Interviews with education professionals.</u>

The only characteristic important for the study purposes, when selecting participants in this phase, was that the education professional should have direct contact with Hispanic parents when performing their duties. In this way, first hand experience would be assured.

Five education professionals were selected. Table 1 provides data on the characteristics of the participants. Four were female and one male. Also four were foreign born with Hispanic origin, and their native language was Spanish. The remaining one was a U.S. native of white ethnicity with knowledge of Spanish. The four professionals of Hispanic origin performed duties where they could use their bilingual skills. Participants worked in Wake, Durham or Orange counties but this information is not shown in the table to protect the participants' anonymity.

**Table 1**. Education professionals' characteristics.

Participant	Gender	Origin	Title
Professional 1	F	Hispanic	Bilingual family specialist
Professional 2	F	Hispanic	Bilingual family specialist
Professional 3	M	Hispanic	ESL coordinator
Professional 4	F	White	1 <sup>st</sup> grade teacher
Professional 5	F	Hispanic	Latino outreach specialist

Two methods were used to recruit participants. First, publicly available information on school districts' Websites or directories was used to identified

education professionals with direct contact with Hispanic parents. The second method was referrals from personal contacts in the Latino community. Once a professional was identified, he or she was contacted by phone or email and asked to participate in the study. Nine professionals were invited to participate, including the five who were interviewed.

Semi-structured interviews were conducted to gather qualitative data about the participants' experiences. This method was selected because, even though all the interviews are performed following a standard set of questions, its flexible structure allows the researcher to encourage participants to elaborate on important matters.

All participants were asked to describe the main characteristics of Hispanic parents, their information needs about school enrollment and participation in school activities, information sources that Hispanic parents use the most, and present Spanish content in their school districts' Websites, if applicable. Appendix A contains the interview guide.

Once all the interviews were completed, they were transcribed.

Transcriptions made a record of the answers to the questions, and comments or anecdotes made by the interviewees to illustrate and emphasize particular aspects of their explanations. The latter information was used to understand the importance of a topic for the participant.

Answers related to the information needs of Hispanic parents were collected with the purpose of building a list of topics that would be used later in Phase II. When pertinent, related topics were grouped. Appendix B presents the list of topics.

## <u>Phase II – Interviews with Hispanic parents.</u>

Inclusion criteria for parent participants were: to be of Hispanic origin; to have a child or children attending schools in Durham, Orange or Wake counties; and to have experience using the Internet. The last criterion was selected to ensure that participants were already Internet savvy and had a positive disposition towards looking for information on the Internet.

Eight participants were selected. Table 2 provides data on the characteristics of the participants. Only one participant was male. One participant was from Mexico, one from Venezuela, three from Colombia, and three from Peru. Four had only a high school education, and the remaining four had some college education or higher. Four of them considered themselves novices in using Internet; however, just one of them appeared to have very little familiarity with its use. The other four described themselves as having an intermediate level of knowledge.

**Table 2**. Hispanic parents' characteristics.

Participant	Gender	Education	Exper. using Internet	Country of Origin	Kid(s) attending school	Years since arriving to USA	Years since first time enrolling child(ren)
Parent 1	M	College	Interm.	Colombia	2	4	4
Parent 2	F	High school	Novice	Mexico	2	4	4
Parent 3	F	College	Interm.	Peru	1	5	5
Parent 4	F	College	Interm.	Colombia	1	3	2
Parent 5	F	High school	Novice	Venezuela	1	2	1
Parent 6	F	High school	Interm.	Peru	1	5	5
Parent 7	F	High school	Novice	Peru	2	7 mo.	7 mo.
Parent 8	F	College	Novice	Colombia	1	5	5

All participants had one or two children attending schools in Wake county (Apex, Cary, and Raleigh). The time of residence in the U.S. ranged from 7 months to 5 years, and the time since first enrollment of their children at school was about the same.

To recruit parents, flyers were posted at the Chapel Hill Public Library, El Centro Latino, El Centro Hispano, La Cooperativa Latina, and were also shared with the education professionals participating in the study. The request for participants was also posted at the Association of Peruvians in NC listserv. Finally, calls to friends in the Latino community were made. Nobody responded to the flyers. Participants were recruited through the Peruvians listserv, friends, and by recommendations made from participants.

Semi-structured interviews were conducted to gather qualitative data about the participants' experiences. All interviews were recorded. Interviews had three parts. In the first part, participants were asked to describe what their main

concerns, doubts, and fears were when having to enroll their children in school for the first time. They also were asked about their present information needs.

Appendix C contains the interview guide.

In the second part of the interview, participants were presented with a list of ten topics (see Appendix B) gathered from interviews with education professionals. The list was randomly arranged to avoid biases associated with list order. Participants were asked to rank topics in the list, assigning 1 to the most important topic, and 10 to the least important topic for them. They also answered two questions about preferences when receiving information from school.

The third part of the interview consisted of a Web browsing session.

Participants were asked to navigate two Websites, and to express their general impression and their opinions about the content in Spanish, and the navigation in the site. To avoid order effect, Web sites were evenly alternated for participants' review. The Web sites for review were (See Appendix D for snapshots):

- Chapel Hill Carrboro City Schools http://www.chccs.k12.nc.us/http://www.chccs.k12.nc.us/
- Wake County Public School System http://www.wcpss.net/
- Hillsboro School District 1J (Oregon) http://www.hsd.k12.or.us/
- Hueneme School District (California)
   http://www.huensd.k12.ca.us/index.htm
- Capristano Unified School District (California) http://www.capousd.org/

The inclusion criterion for the Web sites was that each should have a section or pages with information and resources clearly oriented toward Spanish-speaking users instead of isolated pages or documents.

Once all the interviews were completed, they were transcribed.

Transcriptions made a record of the answers to the questions, and comments or reactions while browsing the Web sites.

## **Findings and Discussion**

Four sets of data were gathered as a result of the two phases of the study

—the qualitative data from the interviews of the education professionals and

parents, the quantitative data from the parents' ranking of main topics, and the

qualitative data from the Web browsing sessions with parents. Each of these sets

of data is described and discussed in this section.

# Findings from interviews with education professionals

As mentioned before, five education professionals were interviewed as part of the study. After a brief explanation of the purpose of the study, all of them showed interest in participating in the study and sharing their experience working with the Hispanic community. At the beginning of each interview, participants were asked to describe how their duties allowed them to contact Hispanic parents. Four of them performed activities that involved answering questions directly from Hispanic parents, either helping them during the enrollment process, through a hotline, or after giving school workshops. The remaining participant, a first grade school teacher, had direct contact with

Hispanic parents during the beginning-of-the-year meeting and during conferences with parents through the year.

Characteristics of Hispanic parents. The first group of questions were oriented to find characteristics that were common among Hispanic parents, and in some cases, characteristics that made them unique or different from other groups of parents. The rationale behind this approach is that these unique characteristics could lead to specific information needs. Table 3 shows the characteristics mentioned by participants.

**Table 3**. Main characteristics of Hispanic parents.

	Characteristic	Participants that mentioned it
1.	Mainly Mexican in origin	5
2.	Face-to-face and verbal communication are the most	5
	effective	
3.	Language limitations shape attitude towards	4
	participation	
4.	Incomplete school education	4
5.	Not used to scheduling activities in advance	3
6.	Low income families	2
7.	Strong work ethic	2
8.	Cultural differences in roles for parents and teachers	1

One of the top characteristics in the list was that most of them come from Mexico. Two participants also mentioned that most of the parents come from rural communities in Mexico. These perceptions match the US Census Bureau data. According to Kochhar et al. (2005), in a study conducted in six Southern

states<sup>3</sup> (based on the 2000 Census), 73% of Latino immigrants come from Mexico.

The research also suggests that immigrants come from regions in Mexico that

"have only recently begun sending large numbers of immigrants" (p. 13).

The second characteristic mentioned by all participants was that Hispanic parents prefer face-to-face and verbal communications over any other type, especially over written communication, even in Spanish. Participants also mentioned that this characteristic is related to the fact that a lot of the parents have an incomplete education (see characteristic 4. in Table 3). Again, from Kochhar et al. (p. 11) we know that 62% of Latino immigrants in the six Southern states mentioned before have less than high school as their education. The preference for oral communication may also be due to a cultural difference (i.e., the social structure of the Latino community gives great importance to family and relatives, and to cultivating close relations with neighbors and friends using oral communication).

Four out of five participants mentioned that limitations in the parents'

English language skills shape their attitudes toward participation in school activities. One participant highlighted the fact that, for several parents, Spanish was a second language because their native language was a dialect from Mexico or Central America. This participant indicated that "15 dialects or indigenous languages from Southern Mexico, and 3 from Guatemala have been identified in

my district." Two participants said that parents wanted to learn and participate more in school activities but were limited because of the language. One of them said, "Once they can make questions, they are very interested in their children's progress." It's also important to mention that one participant noted that cultural differences (see characteristic 8. in Table 3) also were important when reviewing parental involvement. This participant explained that in Latino communities the roles and responsibilities for parents and teachers were clear in relation to education, meaning that teachers are in charge of making decisions about what to teach and how to do it. She claimed that this is one of the reasons why parents don't question what is done at school, just as they expect not to be questioned about what is done at home.

Three of the participants mentioned that Hispanic parents weren't used to planning their activities too much in advance. They said that reminding parents about activities, conferences or meetings the day before, or even early the same day, was the most effective way to secure their participation.

Finally, two participants noted that Latinos have a strong work ethic that doesn't allow them too much time for participation in school activities.

Main concerns of Hispanic parents. The second group of questions was intended to learn from participants what were the specific requests that Hispanic

parents made when asking for help. On this subject, the participants' responses were more diverse. Table 4 shows the topics mentioned by participants.

**Table 4**. Main information needs of Hispanic parents.

	Information needs (topics)	Participants that mentioned it
1.	School calendars	4
2.	Other services provided in the community	4
3.	Enrollment process and required documentation	3
4.	Organization and structure of the U.S. education	3
	system	
5.	What to do to qualify for free programs (i.e., free	3
	lunch)	
6.	Additional services provided at schools	2
7.	Support services for children with learning problems	2
8.	Process of school reassignment	2
9.	Immigration status	1
10.	Home activities to help children progress	1

Four participants mentioned school calendars as one concern. Knowing the dates of the first and last days of classes, holidays, and due dates for applying for school services or lotteries were mentioned as part of this topic.

Also, four participants agreed that parents ask a lot about other services provided in the community. Where to find health providers, hospitals, notary services, and immigration counseling, and how to apply for Medicaid and food stamps are among the more frequent questions asked of these education professionals. Participants said that it was easy to understand that, once parents

found a fellow Latino with knowledge of the "American system," they would use that source to find answers for most of their needs.

Three participants agreed on each of the next three topics. The enrollment process and the required documentation questions were basically focused on children's identification, vaccination requirements, and how to prove residency when living as guests with another family. Questions about the organization and structure of the U.S. education system focused on differences between education systems in the U.S. and Latin American countries, such as educational levels (elementary, middle school, high school), rights and duties of parents, and types of schools (year round, magnet). Questions on what to do to qualify for free programs were oriented to learning about the required documentation for school lunch and other programs.

The next topics where mentioned by two or just one participant (see topics 6. to 10. in Table 4), and include questions about additional school services, support services for children with learning problems, immigration status, and home activities to help their children progress. From these, a common comment among participants was that a lot of times parents don't ask because they are oblivious of services or support provided at schools. "Parents believe that educational systems are the same as in our countries, so they don't ask for

additional services; they don't even think those services could exist," said one participant.

Information sources. Participants were also asked about what they considered the more popular information sources used by Hispanic parents (see Table 5). All of them agreed that parents get most of their information from family members, friends or neighbors. Older Latino residents in the area share their experiences with newly arrived immigrants and teach them where to go and what to do. The next source mentioned was bilingual personnel in schools, especially when they were of Hispanic origin. One participant said that parents keep coming for advice and bringing friends, even when they don't live in the county anymore. Public services agencies were also mentioned because they have translators and bilingual personnel as well.

**Table 5**. Information sources that Hispanic parents use to learn about schools.

	Source	Participants that mentioned it
1.	Family, friends and neighbors	5
2.	Bilingual personnel at schools	3
3.	Public services agencies	2
4.	TV programs and news (broadcast in Spanish by	1
	Univision)	
5.	Web site	1
6.	Workshops in Spanish	1

<u>Spanish content in the school's Web site</u>. This group of questions was applicable only to two participants. One of them said that she knew about some

documents, with content in Spanish, posted in the Web site but couldn't tell how to find them because the district's Web site didn't have a specific section for them and documents were spread all over the site. The other one knew about all the content and also mentioned that the district was working on improving its site. A third participant, whose district's Web site didn't have any content in Spanish, said that a board was reviewing the possibility of developing such content.

When asked about suggested content the participants agreed that all information related to the main concerns of Hispanic parents, previously discussed, should be part of a Web site. Three of them were not sure that a Web site with content in Spanish could be of much help, and one of them emphasized that parents' current information sources should not be replaced. The remaining two believed that the Web could be a very important way to reach parents and suggested that designers should be careful with translations and the ways things are explained. "How-to-do descriptions should be done step by step even when it could appear too basic," recommended one participant.

# <u>Findings from interviews with Hispanic parents</u>

As shown in Table 2, only one participant came from Mexico. According to data from the 2000 Census discussed earlier, 73% of immigrants to the southeastern U.S. come from Mexico. Thus, the sample may not be representative

of the population; however, there are some other factors to be considered as pertinent for this study: education and Internet use. In the same report, educational attainment for Hispanics was as follows: 62% had less than high school, 17% were high school graduates, and 21% had some college or higher education. Unfortunately, there was no information about country of origin for that data set.

In another report, *Hispanics and the Internet*, Spooner et al. (2001) report that 50% of Hispanics (nationally) who are 18 years and older have used the Internet. From that group, 6% had less than high school as educational attainment; 27% were high school graduates, and 68% had some college or higher education.

Because the current study was oriented to identify information needs of a population that uses the Internet as a source of information, the researcher considered it more important to match educational attainment characteristics of the population instead of country of origin.

Main concerns. Parents were asked to remember what their main concerns were when trying to enroll their children for the first time. They were also asked to talk about their main concerns at the present time. Table 6 summarizes the parents' answers. Topics that were not originally mentioned by education

professionals are shaded to highlight the differences between the two groups' perceptions.

**Table 6**. Main information needs expressed by Hispanic parents.

	Information needs (topics)	Parents that mentioned it
1.	Enrollment process and required documentation	7
2.	How kids would face the change and the pressure of	6
	taking classes in a new language. Counseling and support.	
3.	Problems in communication because of limitations in	4
	the language	
4.	Quality of education provided at schools	3
5.	School calendars	2
6.	Process of school assignment and reassignment	2
7.	Discrimination	2
8.	Participation in school activities	2
9.	Organization and structure of the U.S. education system	1
10.	Home activities to help children progress	1
11.	Services for children with disabilities	1
12.	College options and opportunities	1
13.	Adaptation to new culture. Loss of Latino values.	1
14.	Additional services provided at schools	0
15.	Immigration status	0
16.	Other services provided in the community	0
17.	Support services for children with learning problems	0
18.	What to do to qualify for free programs (i.e.: free lunch)	0

The second most frequently mentioned topic in the parents' list —How kids would face the change and the pressure of taking classes in a new language.

Counseling and support.— wasn't mentioned by education professionals in the same terms. For them this was part of the additional services provided at school,

specifically, enrollment for ESL classes. However, for parents this was an important issue; they expressed that they would like to have counseling on how to support their children during the transition to U.S. schools. Two parents told the researcher that their children refused to go back to school and one child reported their child was sick very often without a reason. Eventually, their children overcame their fears and problems, but parents said that during that period, they felt helpless and isolated.

Four parents mentioned as a concern that their limitations with English caused them communication problems or misunderstandings. They also felt restrained and embarrassed about asking questions. This concern matches what education professionals said about how limitations with the language shaped parental participation (see Table 3).

Finally, three parents mentioned their interest in knowing more about the quality of education provided by the schools. They would like to have more information so they can pick a good school and move to a different neighborhood if necessary.

Parents were also asked about how they usually find information about schools. Most of them said that relatives were their main source of information, followed by friends and coworkers. They also mentioned that they learn from school services through information received from schools at enrollment time or

during the school year (in printed versions). They also say that most of the time they have to request help from relatives and friends to translate those documents. Finally, the other most common way to find information was through bilingual personnel at schools when available.

**Table 7**. How parents usually find information about school.

	Information source	Participants that mentioned it
1.	Relatives , friends, neighbors, coworkers, church fellows	8
2.	Printed information at schools (mainly in English)	4
3.	Bilingual personnel at schools	4

## Quantitative data from ranking

During the interview, parents were asked to rank the importance of ten topics/information needs. With the purpose of evaluating the ranking, points were assigned to each position in the ranking. The first choice made by parents was assigned 10 points, the second option in their ranking was assigned 9 points, and so on, until the last option (tenth) in their ranking was assigned just one point. Table 8 shows the results of the ranking.

**Table 8**. Ranking after assignment of points.

	Information need (topic) /	1	2	3	4	5	6	7	8	Total
	Parent	1	2	3	4	3	O	1	0	TOTAL
1.	Enrollment process and required documentation	3	7	10	10	5	10	9	9	63
2.	Organization and structure of the U.S. education system	10	6	8	9	10	8	1	10	62
3.	Additional services provided at schools	9	8	7	7	9	7	8	5	60
4.	Support services for children with learning problems	8	10	6	6	7	6	6	7	56
5.	Schedule of school activities	2	9	5	8	4	3	7	8	46
6.	After school activities to help children	7	4	4	5	8	5	4	4	41
7.	Immigration status	4	1	9	2	1	9	10	2	38
8.	Other services provided in the community	5	5	2	3	6	4	5	3	33
9.	How to qualify for free services	6	2	3	1	3	2	3	1	21
10	Process of school reassignment	1	3	1	4	2	1	2	6	20

The top three options in the ranking show parents' preferences for information that will allow them to comply with requirements and help their children attend schools. Also these topics show their interest in learning more about the school system and the services provided so they can take advantage of them and help their children progress.

Another relevant finding is that education professionals emphasized giving information about other services provided in the community (see Table 4); however, this topic ranked eighth in parents' preferences. It would be worthwhile to investigate further whether the interest is not there, or if there was

something about the way in which the interviews were conducted that affected the parents' rankings.

In the second part of the interview parents were also asked to answer two multiple-answer questions about their preferences when learning about activities in the school. Table 9 shows their responses in terms of preferred communication channel. Even having limitations with the language, seven of the parents would prefer to talk in person with the teacher. One mother said, "I know that I probably won't understand half of it, but still want to have personal contact."

This matches what education professionals mentioned about Hispanic parents' preferences. Because the sample included only parents familiar with the use of the Internet and e-mail messaging, the second option —receive an e-mail— was more expected. Other communication channels (letters, notes sent home, and phone calls) were not preferred.

**Table 9**. How parents prefer to receive information about school.

	Information channel	Participants that mentioned it
		memmoneu m
1.	Talk in person with teacher	7
2.	Receive an e-mail	6
3.	Receive a letter	2
4.	Receive a message sent with my child	1
5.	Receive a phone call from teacher	0

Responses to the question about how much time in advance parents would like to know about school activities or meetings were in sharp contrast to

education professionals' assertions that parents had to be reminded about meetings the day before or early the same day. Table 10 shows that just one of the parents preferred a day early reminder, and none of them selected a reminder the same day.

**Table 10**. How much time in advance parents would like to know about school activities.

	Time	Participants that mentioned it
1.	Two weeks	4
2.	One week	4
3.	Three days	2
4.	The day before	1
5.	Early the same day	0
6.	A month	0

# Qualitative data from Web browsing sessions

Seven out of eight sessions took place at participants' homes. All seven had a computer and a connection to the Internet. Six had a broad band connection, and one had dial-up. The eighth participant accessed the Internet through a public library.

During the browsing sessions, parents were asked to navigate and review the content of two school districts' Web sites. Several questions were oriented to understanding parents' perceptions on ease of navigation: "Please identify if there is a section in Spanish. Was that link easy to find? What would you suggest to improve it?" The second group of questions — "Could you please give your

overall impression of the Spanish version of the site? Is that useful information? What pieces of information are important for you?"— was oriented to learning about what content was relevant for parents and, in addition, if the layout of the information was an important factor for them. The following sections explain the most common problems identified, as well as the preferred features and characteristics, according to participants' comments.

<u>Navigation</u>. Several parents complained about the Web sites' URLs. They said that their addresses weren't easy to remember.

It was observed that the content in English in all of the sites distracted and confused some parents, making it difficult to find the link to the Spanish content. However, this didn't happen at all with the Hillsboro School District's Web site. Parents suggested that links should mimic this one. Once the link was found, navigation was straightforward in all Web sites except for the Chapel Hill-Carrboro City Schools, where a second click is needed to arrive at the Spanish section. This confused all participants because the page after the first click has instructions in English, and there are two links called *En Español* in the same page, but only one takes the user to the right place.

<u>Content</u>. Parents criticized the content of the different pages according to their preferences about information needs discussed previously. However, some aspects and features consistently elicited comments. The first one was the contact

information for a hotline in Spanish and how to reach bilingual personnel at Chapel Hill-Carrboro City Schools. Parents agreed that having this information was important and handy.

Participants highlighted that the section *Preguntas y Respuestas* (Questions and Answers) at Hillsboro School District's Web site was interesting and was the first thing they tried to read. They also noticed a link to a schedule for parents' meetings (*Calendario de reuniones de padres de familia*) in the Hillsboro site. This feature didn't have an equivalent in any other Web site.

Parents also agreed that the wording of topics was a very important factor to invite reading and exploring. All agreed that Wake County Public School System has valuable information under the link *Manual para Estudiantes y Padres* (Manual for students and parents); however, the title didn't give an idea of the richness of the content. One parent said, "I thought it was referring to conduct rules and dress code in schools." A similar impression was their response to the link *Enlaces* (Links) at Chapel Hill-Carrboro's Web site. Parents wanted more information about the organizations listed under this link.

The presence of acronyms (*Programa* AVID at Chapel Hill Web site, *Programa* PLUS at Hillsboro Web site) also evoked considerable interest. Parents felt compelled to click on those links but felt disappointed when they didn't find an explanation of the acronyms immediately. There were mixed reactions towards viewing information in video format.

There is one video explaining the registration process at Wake County Public

School System's Web site, and some parents showed impatience when watching

it; but others considered it a good start that could save them time and clear some

doubts before approaching the districts' offices.

There was no consistent preference for having the information grouped by subject or topic. This is interesting because, when parents were asked to provide an example of the Web sites that they liked and reviewed often, seven of them mentioned online newspapers that followed the traditional format of having a left hand menu with the available topics, and that displayed the information on the right side. They also agreed that the Hillsboro School District's Web site was their favorite site and it follows this type of layout.

Format of documents. To post information in PDF format is, apparently, popular among school districts' Web sites. Most participants didn't understand the format and dropped the searching of information after scrolling down a couple of times. Documents presented in this format had an additional disadvantage: being an exact copy of the printed versions, there was a lot of blank space in the first pages that correspond to the title pages. Parents also skipped the reading of welcoming letters.

Parents agreed that, overall, they preferred the Hillsboro School District's Web site. The link to the Spanish section was easy to find, links had clear and informative names, topics were of much interest, and the general layout was attractive and pleasant.

#### **Summary and Conclusions**

This study used semi-structured interviews to collect qualitative and quantitative information about information needs of Hispanic parents regarding school enrollment and activities. Two groups were interviewed —education professionals and Hispanic parents—as a way to contrast parents' perceptions of what they considered their main information needs or concerns, with what they actually ask when being assisted by a school officer. Interviews with education professionals helped to identify preferences and characteristics pertinent to the majority of Hispanic parents in North Carolina, since the professionals have had contact with many more parents that were included in this study's sample. The target population of this study, Hispanic parents who are present or potential users of the Internet, is a small subset of the Latino population in North Carolina, and this study showed that its characteristics do not exactly correspond to the views of the majority of Hispanic parents as represented in the data provided by the education professionals. Thus, the information obtained from each sample contributed to the overall study findings.

The data collected from Hispanic parents clearly identified their information needs. School enrollment processes and required documentation, organization and structure of the U.S. education system, additional services provided at schools, and counseling and support for helping their children to overcome the transition to U.S. schools, were the most important topics in Hispanic parents' lists of information needs.

The Web browsing sessions proved a great way to understand Hispanic parents' preferences when looking for information on the Internet. Based on this, a school district that wants to provide information to the Latino community through its Web site, should include a section clearly oriented to the Hispanic community and should include the topics discussed above. The Hillsboro School District's Web site (www.hsd.k12.or.us), shown in Appendix D, received the most positive reviews from parents and was an example of pleasant design and high quality of information, according to parents' preferences. According to this and more information collected during the browsing sessions, the characteristics and features that an effective Web site design should have are: clear and prominent contact information for reaching bilingual staff; a frequently asked questions section; the schools' schedules for parents' meetings, if applicable; clear and well explained names for links; no acronyms; no long documents in PDF that only hide useful information; and, in general, simple and clear language.

## Notes

- **1.** The terms *Hispanic* and *Latino* were used interchangeably throughout this paper.
- **2.** According to the same survey, 99% of public schools were connected to the Internet.
- **3.** The six Southern states are Alabama, Arkansas, Georgia, North Carolina, South Carolina, and Tennessee.

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### Appendix A: Interview guide for education professionals

- Please explain how you have contact with Hispanic parents. (Please remember to avoid mentioning names or places that can help to identify yourself).
- o What do you consider the main characteristics of a Hispanic parent?
- What, in your opinion, are the main concerns of Hispanic parents when they approach you for help?
- O you think that it would be important to make a distinction among Hispanic parents? For example, parents that come for the very first time to enroll their kids as distinct from parents that already came through that and want to participate more in school activities.
- o What other distinctions would you like to make?
- o What information needs does each group have?
- What, do you think, is the way that most Hispanic parents get information about their children's schools?
- o Have you reviewed the content in Spanish of your school district website?
- What do you think is the most valuable piece of information in the web site according to your experience?
- o What do you think it lacks?
- What do you think about using the Internet as an alternative means for providing information to Hispanic parents in their own language?

# Appendix B: List of topics/information needs

### PARTICIPANTE NO.

De acuerdo a su experiencia, por favor indique el orden de importancia de los siguientes temas (ordenándolos del 1 al 10, donde 1 es el tema más importante y 10 es el menos importante):

Calendario de actividades de la escuela:	
¿Cuándo se inician las clases?	
¿Cuándo son las fiestas o feriados?	
¿Se cierran las escuelas por nevada?	
¿Cuándo son los exámenes de fin de grado?	
Proceso de registro/inscripción/matrícula y documentación necesaria:	
¿Qué pasos debo seguir para registrar a mi niño en la escuela?	
¿Qué documentos necesito?	
¿Que es el affidavit of residency o prueba de residencia?	
Estructura y funcionamiento del sistema educativo en Estados Unidos:	
¿Qué son elementary, middle y high school?	
¿Qué son las escuelas Magnet?	
¿Qué otras diferencias hay con el sistema educativo de mi país?	
6 Co. 2 cm 2 c	
Servicios adicionales brindados en las escuelas:	
¿Qué es el <i>Before and After school</i> ?	
¿Qué es el Programa de Inglés como Segunda Lengua ó ESL?	
¿Cómo aplico para los desayunos y almuerzos gratis?	
¿Qué son las evaluaciones por problemas de aprendizaje?	
¿Qué es el programa de <i>pre-kinder</i> ? ¿Es cierto que puede ser gratuito?	
¿Que es el programa de pre namaer. ¿Es eletto que puede sel gratanto.	
Servicios de apoyo para niños con problemas de aprendizaje:	
¿Como sé si mi niño está avanzando de acuerdo a lo esperado?	
¿Qué debo hacer si mi niño es varios años mayor del grado que le corresponde?	
¿Qué servicios existen para ayudarlo a nivelarse?	
Eque servicios existen para ayudano a inventise.	
¿Qué debo hacer para calificar a los programas gratuitos?	
Out as al massace de massicarenita de consoleção	
¿Qué es el proceso de reasignación de escuelas?	
¿Mi status migratorio es importante?	
Otros servicios brindados en la comunidad:	
Hospitales y servicios de salud en el área.	
Guarderías o <i>daycare</i> gratuitos.	
Asesoría en inmigración.	
Notarios públicos.	
Actividades que se mueden realizar en esse nome evuden e les niños en la entre estada entre estada entre estada en la entre est	
Actividades que se pueden realizar en casa para ayudar a los niños con la escuela:	
Exámenes o evaluaciones para la casa.	
¿Qué puedo hacer en casa para ayudar a mi hijo con su tarea?	
Enlaces a páginas con actividades para la casa.	

### Appendix C: Interview guide and Web site browsing session for parents

- How much experience do you have using Internet browsers? You can express your experience in months or considering yourself as novice, intermediate or experienced user.
- o Where are you from?
- o How many kids do you have and what are their ages?
- o In what county is your kids' school located?
- o How many years has it been since you arrived for the first time in the US?
- o How many years has it been since you enrolled your kid(s) for the first time?
- o Can you tell me, what were your main concerns at that time?
- o How did you find out the information you needed?
- o If you could go back in time and change what you did before, what you would change, why and how?
- o What are your main concerns or information needs these days in relation to your kids' school activities?

Now I am going to show you a list of information subjects and ask you to rank them in order of importance. If there is any piece of information missing, please feel free to add it to the list and rank it with the whole group.

#### Web site browsing session.

Now I am going to ask you to review some school districts' websites. I am going to ask you some questions about them but please feel free to comment at any moment and about anything that you consider important or about anything that caught your attention in a bad or good way. Do not hesitate to interrupt to give me your impressions.

- o This is the main page of the XX school district. Could you please identify if there is any type of information in Spanish?
- o Was that link easy to identify? What would you suggest to improve it?
- o Could you please give your overall impression of the Spanish version of this web site?
- o Could you please take a minute to read the content?

- o What pieces of information are important to you? Could you please click on that link and read the content? Was that useful information?
- o What do you think is missing?

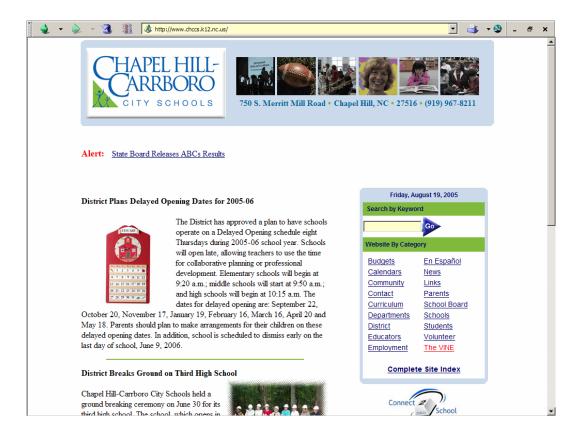
#### Debriefing questions:

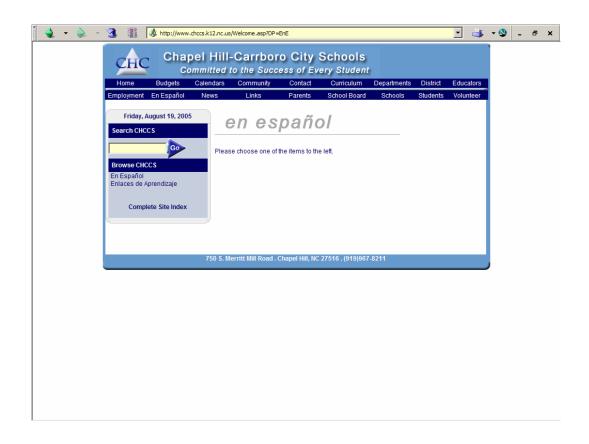
- o Which of the web sites did you like the best? Why?
- o Which of the web sites did you like the least? Why?
- o Do you have any other comments or suggestions?

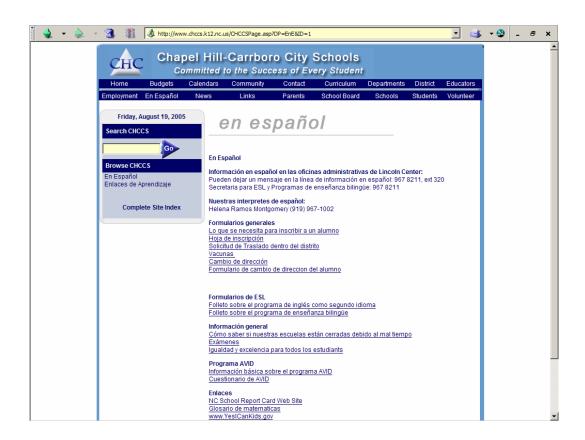
# Thanks again for your participation!

# Appendix D: Snapshots of selected Web sites

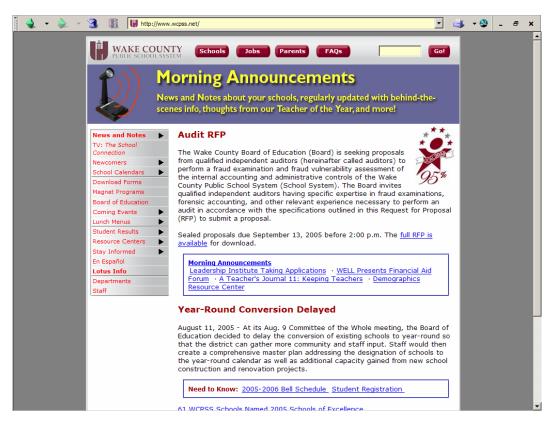
## **Chapel Hill - Carrboro City Schools**

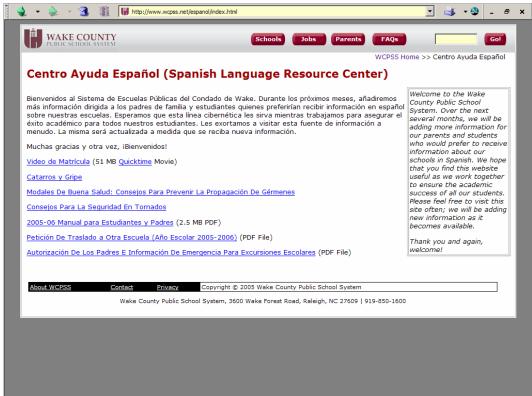




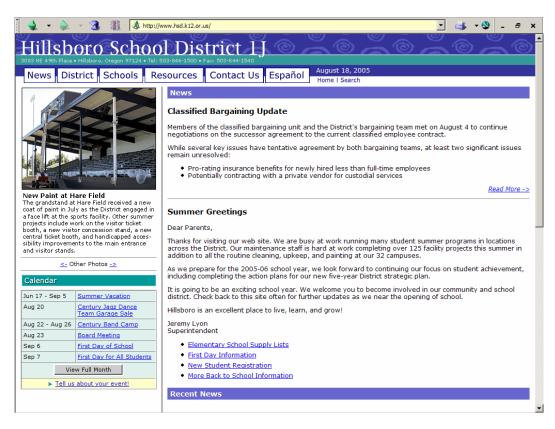


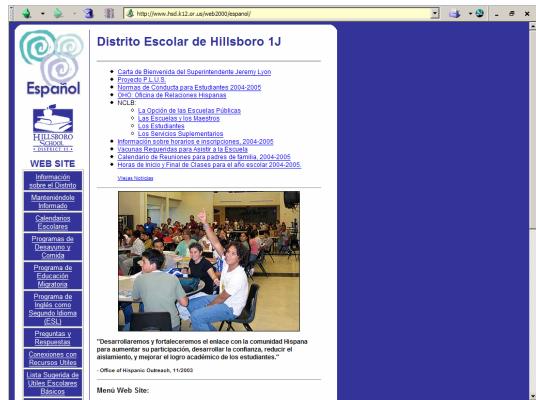
### Wake County Public School System





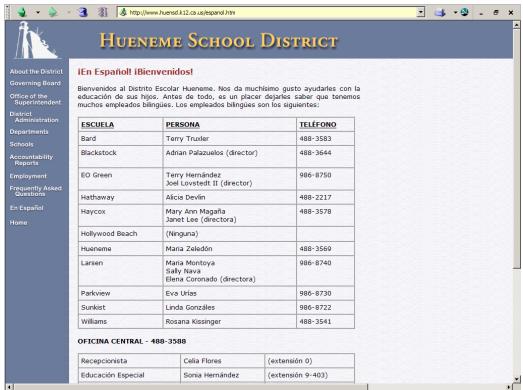
### **Hillsboro School District 1J**





#### **Hueneme School District**





### **Capistrano Unified School District**

