A Proposed Model for Technology/Language Acquisition Application in the Spanish Classroom

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Abstract
Today's global and digital society requires both students and educators to be proficient in foreign languages and technology. The future of the state and nation lies in the hands of today's able youths. Students will not only be competing for jobs with fellow classmates, but also with individuals from Asian, Indian, and Latin American countries and they must be well prepared to meet the demands of a 21st century society.

While there are various programs in communities where individuals can learn a foreign language, the most common world language experience occurs during secondary schooling. In 1996 an eleven-member ACTFL (American Council on the Teaching of Foreign Languages) committee created the National Standards for Foreign Language Education through the help of a three year grant from the US Department of Education and the National Endowment for the Humanities. The end result was a document outlining what students should be able to know and do upon completion of a world language course in K-16 education. These national standards for all world languages are comprised of five different parts, also known as “The Five Cs”. They are communication, culture, connections, comparisons, and communities, respectively. While there is no research or statistical data to prove that the national standards increase proficiency, they give students the best opportunity to learn by defining what proficiency-oriented learning opportunities should look like.

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By

Brittany Lynne Mrozek

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A PROPOSED MODEL FOR TECHNOLOGY/LANGUAGE ACQUISITION APPLICATION IN THE SPANISH CLASSROOM

Brittany Mrozek

Senior Thesis

Professor Alfonso Illingworth-Rico

April 23, 2012
Today's global and digital society requires both students and educators to be proficient in foreign languages and technology. The future of the state and nation lies in the hands of today's able youths. Students will not only be competing for jobs with fellow classmates, but also with individuals from Asian, Indian, and Latin American countries and they must be well prepared to meet the demands of a 21st century society.

While there are various programs in communities where individuals can learn a foreign language, the most common world language experience occurs during secondary schooling. In 1996 an eleven-member ACTFL (American Council on the Teaching of Foreign Languages) committee created the National Standards for Foreign Language Education through the help of a three year grant from the US Department of Education and the National Endowment for the Humanities. The end result was a document outlining what students should be able to know and do upon completion of a world language course in K-16 education. These national standards for all world languages are comprised of five different parts, also known as "The Five Cs". They are communication, culture, connections, comparisons, and communities, respectively. While there is no research or statistical data to prove that the national standards increase proficiency, they give students the best opportunity to learn by defining what proficiency-oriented learning opportunities should look like.

Standard 3, Connections, states that the content learned in the world language classroom must connect to the eight other content areas in education: mathematics; social studies; science; English language arts; music; health/physical education; and technology. In 1985, Gardner proposed the theory of multiple intelligences that specified eight learning modalities. They are as follows: logical-mathematical, spatial linguistic, bodily-kinesthetic, musical, interpersonal, intrapersonal, naturalistic, and existential. Gardner's theory is particularly useful in education
because it encourages teachers to be more cognoscente of using varying teaching methodologies. Additionally, implementing an assortment of activities and exercises that take into account these intelligences makes the content more appealing to a wide variety of learners. Gardner’s vision to ensure learning for each type of intelligence has a striking resemblance to Standard 3, *Connections*. By connecting to other content areas, teachers make lessons more accessible by catering to different types of students’ interests and intelligences. Although technology is not named as one of Gardner’s eight intelligences, inclusion of technology will satisfy student interests and put a new spin on the application of second language acquisition theories in the classroom.

Other language acquisition theories, such as Output Hypothesis (Swain), Input Hypothesis (Krashen), and Interaction Hypothesis (Long), can be utilized through technology mediums to supplement the high school world language learning experience in new ways. These proven theories, among others, serve as the foundation for both world language study in the United States and TESOL (Teaching English to Speakers of Other Languages) programs around the world. While there are differing teaching philosophies among educators, a working knowledge and working application of these language acquisition theories must be present in some form in the world language classroom.

As technology continues to become an ever-present resource in an increasingly global and digital society, teachers need to give the generations of tomorrow the tools they need to successfully function in the world that awaits them. A recent collaborative study sponsored by the John D. and Catherine T. MacArthur Foundation’s spent “$50 million on a digital media and learning initiative, which explored how digital media are changing how young people learn, play, socialize, and participate in civic life” (“Study Shows Time Spent Online Important for Teen
Development”). One conclusion the study came to was that students are fully proficient when using technology for social purposes, but are not as well-versed in using technology to improve their educational experience. The Carpe Diem mantra has never been more applicable than now in relation to education and technology. Teachers should take advantage of technology and its potential to enhance education. With the incredible amount of challenges that face teachers, it is easy to be overwhelmed with feelings of defeat before the school year even begins. However, teachers are responsible for giving students the best possible education. This may mean for some, reassessing and perhaps redesigning their instructional methods to meet the needs of the new student body. By incorporating more technology into the world language classroom, teachers are preparing students for long-term success in the digital age and simultaneously enhancing the language learning experience.

This paper intends to show that the incorporation of more technology in the world language classroom has potential to improve the language learning. The following topics will be explored:

- Potential reasons why teachers do not use technology in their world language classrooms.
- Benefits associated with using technology in the world language classroom.
- Multiple technology resources and applications that promote various second language acquisition theories.
- Cost of appropriate technology enhanced applications and programs that can be used in the world language classroom.

Additionally, this research paper will create a technology-enhanced hypothetical unit for a Spanish 1 high school course. The unit will focus on the integration of technology in the world
language classroom. By combining traditional second language instructional strategies with educational technology, students will be prepared for long-term success in the digital age and will have an improved world language learning experience.

Before beginning this investigation on technology application for the Spanish classroom, it is essential to examine students’ interests, technological abilities, and motivation toward language learning. Additionally, world language educators should be evaluated based on their disposition to use technology, reasons for integration, as well as the impact of the adoption or rejection of technology in the classroom. Lastly, an assessment of the economic circumstances and the implications it has for educators, students, and the future of the education field as a whole is inevitable. By evaluating these various components, teachers can develop a road map to navigate the challenges that stand before them and arrive at a plan to successfully incorporate technology in world language classes.

Examining Students’ Interests, Technological Abilities, and Motivation

The English language is a constantly changing entity. In fact, according to The Global Language Monitor, the English language officially donned its one millionth word, *Web 2.0*, just a few years ago in 2009. Since then, The Global Language Monitor confirms that there are now slightly more than one million English words. The total stands at 1,010,649, according to their data (“Number of Words in the English Language”). This past year alone, 150 new words were inducted into the Merriam-Webster Collegiate Dictionary. “Social media” and “tweet” were a few of the standout additions from the technology sector. An article from Merriam-Webster Dictionary online states the inclusion of these technology related words is “yet another sign of our era’s communications revolution” (“New Dictionary Words for 2011”)).
Technology has infiltrated not only the lives of adults, but also the lives of young children. However, there is a stark contrast between the children who grew up in the 1950s and those of today. “Digital native” or “Net Generation” is a commonly used buzz word both in and outside of the education realm to describe today’s youngsters. A digital native has grown up using the Internet and other technological devices; they are native speakers of the language of computers, video games, and the Internet (Prensky). An opposite term coined, “digital immigrant” is used to describe those individuals who did not have these technologies at their fingertips upon their first inhalation. While most individuals above the age of 35 or 40 would avoid association with the term “digital immigrant”, it does not instantly put them in the same class as teenagers in the year 2012. The growing distinction between digital natives and digital immigrants herein demonstrates one of the underlying issues in 21st century education. Many teachers are digital immigrants who are facing an exponential number of digital natives occupying the seats of their classrooms.

The concept of the digital native was strongly affirmed in a recent eye-opening study completed by the Internet security firm AVG. The survey interviewed 2,200 mothers of children under five years old, with Internet access, from around the globe. Results showed that “58 percent of the children in the two to five year old bracket had mastered how to play a basic computer game” (Wilson). Another startling fact found that “21 percent of four to five year olds knew how to use a smart phone app, while only 14 percent knew how to tie their shoes”. Yet another significant data result proved that “25 percent of young children could open a web browser, but only 20 percent could swim unaided” (Wilson). These results demonstrate a true change in the way we communicate and live, but it also confirms that education should reflect the needs of the 21st century student.
Take for example Thomas Suarez, a sixth grade student, in Manhattan Beach, California. Suarez is not even close to having a driver’s license, yet he has already designed two apps for Apple products. In October 2011, Suarez gave a presentation about his technology endeavors at TEDx Manhattan Beach Conference. During his presentation, Suarez discussed how his school is fortunate enough to be one of the districts testing out an iPad pilot program. Next, Suarez stated, “These days students usually know a little bit more than teachers with the technology,” and immediately elicited a roomful of laughter. At this point, the otherwise poised presenter found himself smiling as well. “This is a resource to teachers,” Suarez continued “and educators should recognize this resource and make good use of it” (Nelson).

While only a small percentage of teenagers are making apps, most still find time to use other tech products on a daily basis. MP3 players and smart phones are more accessible than ever before, especially for America’s most impressionable consumer, the teenager. The number of teens who own MP3 players now totals 76 percent, an 18 percent increase since last year (Rideout, Foehr, and Roberts). Smart phone sales have also increasing drastically among young people. According to Consumer Reports, the number of teens who own smart phones has nearly tripled over the last two years with about 4.8 million teenagers owning a smart phone (MacDonald). Even students who do not own a smart phone still allot a great deal of time for online activities after school. A study completed by Yahoo! and Carat Interactive, an ad agency, found that students between the ages of 13-24 spent 16.7 hours a week online (Weaver). This online time is largely comprised of watching YouTube videos, listening to music, playing games, and using social media Web sites. In a similar study, AOL discovered that “81 percent of teens ages 12 to 17 use the Internet for e-mail and almost 70 percent use instant messaging when they’re online” (Weaver).
All of this data clearly indicates that students have strong technological abilities and their motivation for entertainment centers around these devices. Teachers should recognize, whether they approve or disapprove, that students are intrinsically motivated when it comes to using technology. Given that students are naturally interested and well-versed in this area, it is only logical for a teacher to encourage these strengths and interests to help students develop and sustain motivation to learn a world language. There are already thousands of students just like Thomas Suarez sitting in classrooms. How are world language teachers going to keep these students engaged every day? This is one question that will not disappear in education as future students become more advanced and more innovative. Teachers need to address this concern before the gap between teachers and students becomes irreparable.

**Examining Teachers’ Disposition to Use Technology**

While Eastern Michigan University has required an education technology course since 2003, only one third of college teacher preparation programs have this requirement today. Another third of universities have an optional technology course/technology infusion model. Teachers who received their certificate 10 years ago are likely to have never had a course on educational technology for the classroom. Some teachers are doing what they know and are comfortable with: lecturing, book work, overheads, and the occasional Power Point presentation. Does this mean that the traditional model of teaching has ceased to work? No, it does not. However, it does indicate that traditional model of teaching can be improved.

Technology is a change and this transition can be a great source of trepidation for many, especially digital immigrant teachers. Yahoo! Education journalist, Terence Loose, gives an accurate description of how many may feel toward technology in the following passage:
If you're 15, the virtual world is probably as comfortable to navigate as the real one. For the rest of us, sometimes going on the Internet is like being dropped in Budapest without a map. Blindfolded.

Respected Computer-Assisted Language Learning researchers Arnold and Ducate (7) reported on potential reasons as to why some language professionals do not use technology in their classrooms. After extensive investigations, the researchers found there are both philosophical and practical reasons. The former emphasizes five sub-reasons:

1) Technology is not a part of some teachers’ philosophies of education

2) Technology eliminates the social aspect of teaching

3) Technology can prevent students from developing research skills

4) Technology can instill a sense of laziness among students

5) Technology significantly limits teachers’ ability to cover content material

Reason 1: Technology is not a part of some teachers’ philosophies of education

Just like no two snowflakes are alike, neither are two teachers’ philosophies of education. However, every teacher must recognize the fact the education is a constantly changing field as teaching methods continue to be updated and improved. As in most fields, world language education has certainly evolved in its methodologies.

Second language instruction began with the Grammar-Translation Method, which emphasized translation and memorizing grammar rules. This was followed by the Direct Method that was similar to top-down processing in that it focused on speaking proficiency and assumed grammar rules would simply be acquired by the learner through time. Next, was the Audiolingual Method that emphasized listening and speaking skills through stimulus and response techniques characteristic of B.F. Skinner’s behaviorism. In the 1960s, a Cognitive
Approach introduced the idea of language for meaningful usage and creativity. A decade later, the Communicative Approach emerged promoting various contexts for language learning. Finally, the Natural Approach developed which is both proficiency-oriented and context-oriented.

While technology integration is neither a new approach nor method for teaching world language, it can accompany any instructional strategy. Technology is another contribution to the world language field. Currently, the most widely accepted method is the communicative approach to language learning. This approach emphasizes the need for interpersonal communication and focuses on opportunities to interpret, to express, and to negotiate meaning in real-life situations. Technology can encourage new ways for students can communicate with one another. In addition to the fact that this methodology is the most widely accepted in the language learning community, it also aligns with the National Standards for Education and provides students with the best opportunity to learn. All teachers should strive to give their students all the tools they need to succeed in the classroom and beyond. A Hebrew Proverb states “Do not confine your children to your own learning, for they were born in another time”. Pedagogy is beginning to reflect the changing world and it should be embraced, not ignored.

**Reason 2: Technology eliminates the social aspect of teaching**

Another concern of in-service teachers is that using technology eliminates the social aspect of teaching. While this is a legitimate concern, technology actually can enhance social learning with the right tools. Yet to fully address this issue, there needs to be a clear understanding of what the “social aspect of teaching” truly means.

The word “social”, a seemingly clear cut adjective, lends itself to great interpretation for world language professionals. Moreover, this phrase seems to be directly related to one’s perspective on the role of the teacher. In some instances, the teacher may assume the role of a
content-disseminator, where the students are expected to listen and appreciate content knowledge from afar. From this perspective, “the social aspect of teaching” merely involves a live human being standing before students and speaking. How much actual “social” interaction is taking place? Yet others bring a more democratic perspective, seeing the role of the teacher as more of a classroom facilitator. Here, the facilitator encourages multiple types of social interaction and student participation through partner, small group, and large group interactions. Moreover, it involves the students taking an active part in their own learning by exploring and manipulating the content. Having the teacher assume the role of the facilitator allows for more social engagements for both teacher-student and student-student exchanges. Social interaction between the teacher and students are essential to world language learning and can be supplemented by online activities.

Applications such as Skype can transform the Spanish classroom in ways never thought possible. Skype, a free Internet calling program, can allow people from anywhere in the world to connect via a voice call or video call. This is a ground breaking revolution for Spanish language education as it gives students the opportunity to speak directly with native Spanish speakers. A frequent buzz word in world language education is “authentic material”. Authentic material refers to products that are made exclusively made for individuals of specific language group and BY individuals of that specific language group. Calling through Skype and speaking directly with Spanish speakers is the ultimate use of authentic materials and social interaction in the world language classroom.

Another way to integrate social interaction with technology is through online threaded discussions that are available in applications such as Moodle and Wikispaces. These are types of asynchronous computer-mediated instruction allow people to communicate with each other, but
at different times. During these asynchronous threaded discussions, students are usually responsible for completing one response to a question listed by the teacher in a set threaded discussion forum. Once a student has responded, they need to read the responses of their classmates, which are also visible, and comment on that student’s original response. Threaded discussions are valuable because they have the potential to change one’s perspective by reading about someone else’s thoughts. Students are notorious for using technology after school. By giving a brief online assignment, when students are already online, they are more apt to complete it because it caters to their interests. Willis, Stephens, and Matthew (23) confirms that computer-based technology supports social learning by offering “multiple ways to interact with and process information, experience multiple media formats, create and distribute student work, and communicate with other learners and experts from across the globe”.

Reason 3: Technology can prevent students from developing research skills

Developing effective research skills is an essential part of secondary schooling. While technology does in fact make plagiarism and cheating easier than ever, some forget about opportunities that do exist for students to develop effective research skills. The Internet is very useful for students as they can simultaneously study a world language and learn how to research. School libraries and public libraries do in fact have a plethora of books, but many areas throughout Michigan are unlikely to have vast resources on specific aspects of a certain language and culture. However, online search engines such as Google or Yahoo provide students access to very content-specific knowledge that otherwise they would not have access to in their physical school or public library. With these two search engines, students who study Spanish are able to search through twice the content, as they have the option to search for information in the target language with Yahoo España (yahoo.es) and Google México (google.com.mx), among others.
The Internet is also beneficial as it has a diverse assortment of free Web sites that can help students during the writing process. Bubbl.us is one such site that assists learners in organizing information and ideas through the creation of online graphic organizers. This Web site does not require the user to join or provide an email address. It is quite user friendly with its simplistic functions and ease of access. Additionally, it can favorably impact research in other content area classes.

Some schools are lucky enough to have Inspiration software that is very similar to Bubbl.us. This second software program also helps students organize information and ideas through graphic organizers. Other useful features in Inspiration Software are instant outlines and instant PowerPoint presentations. With a simple click of a button, an entire concept map can be transformed into a useful, ready-made outline or PowerPoint presentation. While Inspiration comes with more graphics and colors, its founding function, the creation of concept maps, serves the same basic function as the Bubbl.us program. The only major difference is that it comes with a larger price tag, $68, compared to Bubbl.us which is a free online tool. While these tools are useful for educators, it is important to remember that they are also beneficial resources for students to study, to complete activities, and to give presentations. The figures below are examples of concept maps created with Bubbl.us and Inspiration, respectively. Additionally, there are figures of the instant outline and PowerPoint presentation available with Inspiration Software.

Figure 1: Bubbl.us Concept Map
Figure 2: Inspiration 9 Software Concept Map

Figure 3: Inspiration 9 Software Instant Outline

<table>
<thead>
<tr>
<th>National Standards for Foreign Language</th>
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</thead>
<tbody>
<tr>
<td>I. Communication</td>
</tr>
<tr>
<td>A. 1.1</td>
</tr>
<tr>
<td>B. 1.2</td>
</tr>
<tr>
<td>C. 1.3</td>
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<tr>
<td>II. Culture</td>
</tr>
<tr>
<td>A. 2.1</td>
</tr>
<tr>
<td>B. 2.2</td>
</tr>
<tr>
<td>III. Connections</td>
</tr>
<tr>
<td>A. 3.1</td>
</tr>
<tr>
<td>B. 3.2</td>
</tr>
<tr>
<td>IV. Comparisons</td>
</tr>
<tr>
<td>A. 4.1</td>
</tr>
<tr>
<td>B. 4.2</td>
</tr>
<tr>
<td>V. Communities</td>
</tr>
<tr>
<td>A. 5.1</td>
</tr>
<tr>
<td>B. 5.2</td>
</tr>
</tbody>
</table>

Figure 4: Inspiration 9 Software Instant PowerPoint Presentation
Moreover, there are many Web sites available that teach students about the proper way to cite sources such as the Purdue Online Writing Lab, commonly known as OWL. This informational resource gives students all the information they need to properly cite research sources. In addition to the fact that OWL is free, another great feature is that it does not automatically generate citations. Instead, it gives examples of various types of citations in both MLA and APA formats, which encourages students to actively think about what they are doing. The figure below is an actual page layout with an example of citing an online periodical for an APA bibliography.

Figure 5: OWL at Purdue

Reason 4: Technology can instill a sense of laziness among students

Another common misconception regarding technology in the classroom, according to Arnold and Ducate (6) is that some teachers believe that "technology encourages student laziness." Principal Eric Sheninger of New Milford High School in New Jersey initially had his doubts about the benefits of using technology, specifically social media, in education. Consequently, Principal Sheninger banned all social media from school use. However, after learning about how education can effectively integrate technology, he drastically changed his tune. This principal who once banned YouTube, now freely encourages teachers to utilize this resource. Sheninger said in an interview with Education Week, "When you see students
reactions to environments that effectively integrate these technology tools, the enthusiasm, the engagement levels are a lot higher” (Sheninger). Intrinsic motivation tells us individuals are more apt to participate in something when they are genuinely interested in it, as opposed to being forced to by an external factor. Therefore, “a curriculum containing activities suggested by students begins to accommodate individual learning styles” (Apple and Bean, 90) and supports intrinsic motivation. Teachers see more enthusiastic students who look forward to utilizing technology in the world language classroom. Schrodt and Turman (177) report that, “Students performed better if they had a teacher whom they perceived as competent and credible. If instructors do not use technology, students might perceive them as not having their best interests in mind, which could possible lead to less learning”.

Additionally, using technology does in some ways create a more democratic classroom that fosters student autonomy. Alex Kam, a high school student, asserts that using technology has encouraged him to take a more active role in his own learning. He states that “Part of being successful in that kind of environment is knowing when to ask for help and taking responsibility for your own learning” (Ash, “Students Critique Blended Learning Experiences”).

**Reason 5: Technology significantly limits teachers’ ability to cover the content material**

The final philosophical argument as to why teachers do not use technology is due to the possibility of inhibiting their ability to cover the textbook. Several world language textbooks are “hybrid” in that they include Web-based exercises that do promote concepts in the textbooks. These Web activities are pre-created by textbook publishers and provide additional opportunities for students to practice their language skills and knowledge of culture.

Technology should relate to the content being taught; otherwise it is not worthwhile for teachers or students. Instructors can use the designated Web-based supplemental activities or
create their own so that they can be contoured to fit the precise needs of their students or a specific section of a textbook. The notion of using technology in world language studies should not be an abstract concept whose gains are questionable. Technology can supplement language acquisition when the right tools and approaches are used.

Ducate and Arnold (7) also outlined practical reasons as to why teachers do not include technology in the world language classroom. These are as follows:

- Learning about technology applications and producing lessons is time consuming.
- It is unreasonable to devote time to integrate technology.
- There are not enough incentives to use technology.
- There is not enough equipment or technical support.

**Reason 1: Learning about technology application and producing lessons is time consuming**

Designing lesson plans alone is a great undertaking in and of itself without adding time for potential activities that include technology. Access to resources and support is a defining issue that is perhaps responsible for the limited technology seen in the classroom. The lack of research published concerning the high school world language classroom and technology implementation, does not help the situation. Extensive library book collections and even university online databases have narrow results for published works on the topic, making the process a challenging endeavor to undertake. While professional development opportunities, such as the 2012 Michigan Association for Computer Users in Learning Conference, are also good resources for all teachers to learn about technology, the time schedule is far from practical. For example, this year’s conference took place during the school week on March 7-9, which unfortunately for many districts was also when Michigan Merit Examination (MME) testing
occurred. Teachers cannot be expected to automatically integrate technology applications when a scarce number of resources exist and of those that do, accessibility is arduous. Technology integration truly is an investment that requires total commitment in order to be a success.

**Reason 2: It is unreasonable to devote time to integrate technology**

Instructors likely have goals at the beginning of the year to integrate more technology into their world language classroom. Yet, as life become busier and busier, technology education finds itself at the bottom of the list. However with schools closed from mid-June to mid-August, there are opportunities available during the summer months for teachers to include technology into lessons.

CLEAR (Center for Language Education and Research) at Michigan State University offers workshops in the summer to help education world language teachers on the benefits of using technology in the classroom. As these seminars are held when school is not in session, it allows more time to brainstorm ways to integrate certain activities and exercises into lessons. Additionally, CLEAR has a Web site that has a scattering of excellent activities that are already created. Teachers do not always have to design a technology infused activity themselves. Often programs can automatically generate a worksheet or feature activities already structured around a specific topic in multiple world languages.

**Reason 3: There are not enough incentives to use technology**

Digital natives are more intrinsically motivated to use technology in all facets of life than ever before. By integrating technology into world language classes, it is likely that students will be more apt to be enthusiastic about the course. Additionally, it allows the students to have a hands-on experience working and manipulating the language.
With technology, students have the opportunity to do this because using technology is a fun experience to a large percentage of today’s teenagers and in some applications can also be personalized. If instructors incorporate the interests of the students in their lesson plans, students will hopefully gain the motivation they need to keep studying that subject. A Native American Saying states, “Tell me and I’ll forget. Show me, and I may not remember. Involve me, and I’ll understand” (“Education Quotes and Proverbs”). Students learn by doing; therefore, an interactive classroom that gets them interested and involved is the best way to foster a positive educational environment.

**Reason 4: There is not enough equipment or technical support**

With limited financial resources, it can be a challenge to find appropriate technical equipment to use in the classroom. Technology does not have to be limited to a personal iPad for every student or a SMART/Promethean board in the classroom. There are numerous technology applications that are free or low-cost and widely accessible that will be explored later in this paper. Overall in the field of education, information regarding free and low-cost applications and programs needs to be further researched to strengthen the students’ experiences.

**Assessing Economic Circumstances**

Since the recession began, times have never been worse for this nation, state, and its teachers. The employment and unemployment of teachers is directly affected by the successes and, more appropriately, disappointments of the U.S. economy. A research study done by the National Center for Education Information (2005) found that “the proportion of K-12 teachers who are 50 years of age and older has risen from one in four (24 percent) in 1996 to 42 percent in 2005” (Feistritzer and Haar). More recently, data from National Center for Education Statistics shows that the number of teachers who are 50 years of age or older increased, from
about 527,000 in 1987-88 to 1.3 million in 2007-08 (Ingersoll and Merrill). The relationship between older teachers in the workforce and a broken American economy is difficult to dismiss. Significantly larger classrooms coupled with an endless slew of salary and benefit cuts make it harder for in-service teachers to retire and consequently provides a greater challenge for young teachers to find jobs. The Bureau of Labor Statistics reports that, “Local school districts already have eliminated 278,000 jobs nationally since September 2008” (Oliff and Leachman). This statistic is represented in the figure 6 below:

![Figure 6: Three Years of School Job Cuts](image)

Even among the significant cuts to education, some districts are finding ways to reallocate money to invest in technology. Yet with some technology purchases, some might question whether the equipment will benefit the students or the teachers. Education blogger Ryan Bretag writes that classrooms have largely been teacher-centered when it comes to technology integration. Furthermore, the education blogger suggests looking at the classroom from a student’s perspective stating, “Students see a tech rich experience for the teacher: a computing device, an IWB, a projection device pointing at the front, and perhaps an iPad or doc camera” (Bretag). On the contrary, teachers see pencils, notebooks, and paper when they look out at their students. “What an absolute disconnect” he exclaims. “The expectation is that the
teachers have the latest and greatest technology for teaching. Yet, there is little concern about what the students have” (Breytag).

Some schools are starting tablet pilot programs, with either a handful or full classroom set of tablets available to students. CNN confirms that more than 600 public school districts have opted for a 1:1 iPad program (Bonnington). There are both pros and cons to having a classroom set of tablets in schools. Apple’s iPad product education page emphasizes that with their tablet device “students engage with content in interactive ways, find information in an instant, and access an entire library wherever they go” (Apple in Education). Moreover, students have access to up to date knowledge of current events, a significant feature especially in the world language classroom. iPad and other tablet devices do make the content more attractive to students, but there are also practical benefits to using such devices. Quillen reports that the “battery life of eight to 10 hours and a weight of just over a pound, iPad offers more portability and less startup during the full school day than laptops or netbooks, while its screen size facilitates more flexibility using the Web and easier input than smart phones (Quillen). Additionally, tablets provide opportunities for individualized learning as students are able to proceed through the content at their own pace. Coleman Kells, principal of Amelia Earhart Middle School states that, "Using the iPad was more normal, more understandable for them". Additionally, he asserts "One of the greatest things about the iPad is its versatility. It can really be what you want it to be." (Ash, “Rethinking Testing in the Age of the iPad”).

Still, some concerns do arise as tablets’ popularity increases within education. For school districts that only have a handful of tablets, how can all students benefit from this interactive device? This means that five or so students are engaged using the tablet device, but the other 20-some students are not. Another concern that comes to mind, what happens if the device is
accidently damaged? Some argue that compared to a desktop computer or laptop, iPad is a good bargain at $499 for a base model. Tablets also have a plethora of apps available to users pertaining to various content areas. While there are many that are free, there are an equal number that cost anywhere from $.99 to $3.99. By the time apps for each content area are added to the base price of this device, the cost could easily increase by $100 per device. Therefore, making the device no more cost efficient than a desktop computer or laptop. The claim to fame of the iPad and other tablet devices is bringing new meaning to the word “interactive” in education. What if similar interactive experiences could be achieved without the cost of an iPad?

As the number of schools participating in tablet pilot programs continues to grow, still the majority of school districts are not a part of the tablet phenomenon. Using tablets is an example of excellent educational technology integration; however, educational technology is not exclusively limited to tablet usage. Improving the educational experience does not necessarily have to be defined by the type of tablet that the school district has. Several technology applications take place on the Internet without having to purchase a device or program, thus making them more accessible to teachers and students. The only cost comes in spending the time to find them and how to effectively implement them into lesson plans.

Presentation Mediums

Before delving into specific types of programs that are beneficial for language education, it is necessary to discuss presentation tools that all world language teachers can utilize. PowerPoint is one of the most common presentation mediums due to its ease and simplicity of creation. Paradoxically, it is one presentation tool that is severely misused as well. Lonergan asserts that most people have attended a talk or class lecture where the speaker projects on each slide every word they are going to say. Naturally, the audience is going to direct their attention
to the words on the slide, as opposed to the words coming out of the speakers mouth. Only to make matters worse, the speaker will sometimes speak to the projection screen rather than making eye contact with the audience. PowerPoint should not take precedence over the speaker. Instead, it should be used to enhance the spoken word through the use of images and graphics. This presentation tool can be extremely effective when used properly, but also has the potential to be disastrous.

Teachers now have more options than simply PowerPoint when it comes to presenting content. One example of a unique, exceptional tool is Prezi, an Internet based presentation medium, created to develop and share ideas. Moreover, it allows an individual “to present ideas in a visually engaging way” (“Learn Prezi”). Instead of using set of mundane slides as in PowerPoint, Prezi features a single plane where the creator can use endless combinations of shapes, text, and images to group and emphasize ideas. Templates exist, but individuals are also able to establish their own design and manipulation of the content. Another tremendous benefit is that a single presentation can be created by multiple individuals from different locations. Prezi also allows users to include copyright free images as well as embed YouTube videos within the program.

Figure 7: Prezi Presentation
Slideshare.net is another program similar to the previously mentioned programs with its ability to present content in an organized and appealing manner. Like Prezi, Slideshare is an Internet-based presentation tool. Two options are available to users, a free basic version and a paid “pro” version. According to the Slideshare.net Web site, other unique features of Slideshare include the ability to:

- Download presentations on a variety of topics
- Include on blogs, websites, company intranets
- Use on Twitter, Facebook, LinkedIn
- Slidecast: sync mp3 audio with slides to create a webinar
- Embed YouTube videos inside presentations

While users are not able to build presentations from the site itself, one can upload documents from PowerPoint and OpenOffice. Once files are uploaded, they can be shared publicly or privately. In addition to the above mentioned benefits of Slideshare.net, another notable feature is the ability to automatically generate a transcript of text from slides.

ZoomIt is yet another presentation tool with features similar to those of Prezi. The free program powered by Microsoft allows content to be presented on a large plane, as opposed to mundane PowerPoint slides. Additionally, the program allows presenter to zoom in and out of the presentation screen, and simultaneously make annotations. There are many alternative presentation mediums that lend themselves well to classroom instruction. ZoomIt, Prezi, and SlideShare are just a few tools that have the potential to make content more appealing to students.

**Implementation of Second Language Acquisition Theories**

The inclusion of technology in the world language classroom is a feat that school districts continue to encourage among educators. However, technology implementation must benefit the students by fostering an optimal language learning environment. Second language acquisition
theories such as the Input Hypothesis (Krashen), the Output Hypothesis (Swain), the Interaction Hypothesis (Long), and the CUP Hypothesis (Cummins) must be the driving forces behind the technology enriched activities and exercises that are used in the classroom. These language acquisition theories provide the structure and conditions that are essential for second language learning.

The Input Hypothesis is one theory in Krashen's five part Monitor Model for language acquisition. This hypothesis states that "language acquisition occurs only when learners receive an optimal quantity of comprehensible input that is interesting, a little beyond their current level of competence, and not grammatically sequenced, but understandable using background knowledge, context, and other extralinguistic cues such as gestures and intonation" (Krashen). The BBC Languages Web site is an excellent resource that provides activities and access to proficiency-appropriate content. The most notable features are the links on the Web site to Spanish TV programs and radio stations, in both Spain and Latin America, are worthwhile sources of comprehensible input as well as authentic material. In addition, these programs are separated into three categories: beginner, intermediate, and advanced. Web site visitors can be accommodated by proficiency level, activities by topic group, i.e. health and travel, and rote grammar instruction and practice. No fees or special licenses are required making the plethora of resources available for students and teachers both inside and outside the classroom.

TeacherTube and YouTube also offer short video clips to watch in the target language on numerous notable historical events, cultural phenomena, famous landmarks, as well as mundane activities. This is yet another resource where students have direct access to meaningful input in the target language. YouTube is notoriously known for its senseless uploads, and often is
blocked for classroom use. In support of technology Anthony Jackson writes:

Districts need to stop blocking Web sites that connect students to the larger world.

However well-intentioned the policies that block social media are, they are also failing our students by limiting possibilities for learning about—and from—the world. Contrary to popular belief, there is a wealth of worthwhile videos for educators. It might take a few hours of searching, but there are appropriate videos that can complement classroom learning. With both resources there is the option to create and upload one’s own videos. Uploads can be made private and public. With private video uploads, only those with the URL address can access the video.

The Merriam-Webster Dictionary defines a podcast as “a program made available in digital format for automatic download over the Internet” (“Podcast”). iTunesU is a popular place to get downloadable podcasts from top universities in the United States. Most of these podcasts can be downloaded for free, however there are some available with an additional cost. To find podcasts in the target language, it is recommended to search the specific world language as more search matches in the target language will appear. Podcasts range in topic from specific grammar points to communication exchanges to lectures mostly in the target language. An additional advantage is that podcasts can be downloaded right to an MP3 player or computer. This resource encourages language learning through the use of comprehensible input that can be accessed easily and with no cost.

The second essential component in a language classroom is the need for output, or practice writing and speaking. Swain’s Output Hypothesis asserts that “learners need to speak the language to achieve higher levels of language competence” (Swain). Output can be practiced through two types of computer-mediated communication. The first type, synchronous
communication, involves communicating with others in real time. Examples of synchronous communication include instant messaging, chat rooms, and Skype. One Web site called TodaysMeet, which can be found at Todaysmeet.com, does not require participants to log in or register. It is a free resource where students can talk to each other in real time. Students can post questions anonymously, which has the added benefit of potentially lowering the affective filter thus making students more comfortable in the classroom. Communicating in real time encourages students to negotiate meaning if something is misunderstood in the exchange. The second type of communication is called asynchronous communication. Contrary to synchronous communication, asynchronous exchanges can occur between individuals at different periods of time. Email, blogs, threaded discussions, and Wikis are all forms of this type of communication that are also free. Threaded discussions boards, that are available in programs like Moodle, offer a safe environment where students can interact with other classmates in the target language. Wikis are collaborative Web sites and are commonly used by teachers as an online course supplement (“Face of Your Classroom”). Only students in the class are enrolled in the site and therefore are the only ones who can access the content. Both types of communication, synchronous and asynchronous, focus primarily on writing output in the target language. Like writing production, speaking is a form of output with dual importance. Although Skype has been frequently mentioned in this research paper, it must be discussed once more here. Skype gives students the opportunity to practice speaking in real time and with native speakers. Few, if any, other programs exist that give students free opportunities to connect with speakers of the target language.

Tell Me More is innovative, speech recognition software that is specifically designed to achieve greater speaking fluency and accuracy in the target language. Although, the cost is
unrealistic, $230-$600, for school districts to purchase, failing to mention this product would be wrong as it has the potential to greatly improve speaking abilities in the target language. A learner’s speech is recorded in the program and a wavelength diagram is generated based on the learner’s speech. Additionally, students are able to see their pronunciation wavelength compared to that of a native speaker. There are scales in the program to indicate differences between the two wavelengths. Moreover, the software can generate a 3D animation of lips, teeth, and tongue to help learners imitate the wavelength of the native speaker. While the cost of this product is not in the price range of most districts’ budgets, the great potential it has to advance a learner’s speaking proficiency is remarkable. The way this software combines output production with technology is a great feat. Hopefully in the future, other products similar to Tell Me More will be available at a lower cost or free online.

The Interaction hypothesis (Long) emphasizes a need for interpersonal communication between language learners to create opportunities for negotiation of meaning between students. Negotiation of meaning is an exchange between learners where they attempt to resolve problems in communication and work toward mutual comprehension. Social interaction is an essential component to the communicative language approach. Applications that supplement the output hypothesis, such as blogs and threaded discussions, go hand in hand with this second language acquisition theory as well. Social interaction allows students to practice both receptive and productive skills as they work toward mutual comprehension.

As a picture can be worth a thousand words, images are an essential facet of language education. Language learning involves more than mere grammar knowledge. To fully understand and appreciate the target language, students need a well-rounded language experience that emphasizes cultural knowledge as well. Language is a defining marker of culture and vice
versa. Renowned linguist and researcher Jim Cummins has developed the dual ice-berg model below to help explain the relationship between L1 (first language) and L2 (second language) in addition to C1 (first culture) and C2 (second culture).

His Common Underlying Proficiency (CUP) hypothesis visually demonstrates how L1/C1 and L2/C2 are essential to second language acquisition. There are programs available such as PhotoPeach, Windows Live Movie Maker, Kizoa, Animoto, Shwup, Vuvox, and Yodio are tools that can combine music, photos, videos, and more to help students gain a greater cultural perspective of the second language they study.

Second life is another way in which students can experience culture without leaving the classroom. Although student use should be monitored, second life can serve as an excellent way to get a feel for the target culture. Avatars can teleport to various destinations. Machu Picchu in Perú is one such destination. Through the use of Second Life, students can explore the ancient ruins, encounter signs in Spanish, and interact with classmates.

The Input Hypothesis, the Output Hypothesis, the Interaction Hypothesis, and the CUP Hypothesis are a few second language acquisition theories that contribute to a well-rounded language learning experience. It is unrealistic to expect every theory to be utilized in each class.
period. However, it is essential that each is strategically included to create meaningful
instruction that encourages greater proficiency.

The traditional role of the student and educator has naturally progressed over the last few
decades and is now at a point where a change in world language learning is seemingly inevitable.
Gone are the days when homework was completed individually, silently, and by hand. Now
students are encouraged to use additional resources that provide an experience that goes beyond
mundane black and white text. Skype, Moodle, Threaded discussions, Weebly, Blogs, and Wikis
challenge students to use skills that go beyond the traditional model of mere grammar and
vocabulary drills.

Country Singer Brad Paisley pens the following lyrics in his chart topping hit “Welcome
to the Future”:

Look around it's all so clear
Wherever we were going, well we're here
So many things I never thought I'd see
Happening right in front of me

100 years ago, the only supplies students had were books, paper, and pencils. Society has made
amazing strides in all areas that has improved the quality of life dramatically. The field of
education, like the rest of society, is in the position to enhance learning like never before.
Implementing technology in the classroom encourages second language acquisition, but also
fosters a democratic classroom. As educators begin to incorporate more technology tools into
instruction, they are making a commitment to provide students with the best possible language
learning experience. Technology fosters a language classroom that is more innovative,
intriguing, and intrinsically motivating for both teachers and students. Utilizing educational
technology in the second language classroom will prepare students for success in our digital society, and simultaneously enhance the language learning experience.
El Tiempo Unit
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Lesson 1: Weather Expressions with the Verb *Hacer*

Lesson 2: Calculating Temperatures

Lesson 3: Graphing Temperatures

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Lesson 5: Understanding Tornados

Lesson 6: Making a Tornado

Lesson 7: Exploring Country Specific Weather Patterns Day 1

Lesson 8: Exploring Country Specific Weather Patterns Day 2

Lesson 9: Review for Chapter Test

Lesson 10: Chapter Test
Lesson Plan 1: Weather Expressions with the verb *Hacer*

**Objectives:**
Students will be able to:
- Ask about weather conditions.
- State common weather conditions.
- Identify weather conditions with the help of visual images.

**Content Standards Addressed:**
- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.
- Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.

**Major Conceptual Question Students Will Answer:**
- How do I ask and respond about weather conditions in Spanish?

**Concepts Used as a Foundation:** Meteorology

**Preparation:**
- PowerPoint
- Handouts of Activities 1 and 2

**PowerPoint Presentation:**

**Interpretive Communication:**
Slide 1: ¡Buenos días, clase! ¿Cómo están? Hoy vamos a aprender sobre el tiempo. Aquí en Michigan tenemos cuatro estaciones: el invierno, la primavera, el verano y el otoño.

Slide 2: En el invierno, se puede construir un muñeco de nieve y beber chocolate caliente.

Slide 3: En el otoño, se puede ver los colores bonitos de las hojas. También se puede comer los donuts y el zumo de manzana.

Slide 4: En el verano, se puede nadar en la piscina. No hay escuela. Se puede viajar a otros lugares con la familia.

Slide 5: Estoy muy emocionada porque este mes es abril y estamos a punto de empezar la primavera. ¡La primavera es mi estación favorita! ¿A ustedes les gusta la primavera también?

Slide 6: En la primavera, se puede correr afuera. Se puede tener un picnic. Se puede caminar con el perro.
Slide 7: También las flores empiezan a abrirse. ¡Se puede hacer todo esto sin una chaqueta! Me encanta la primavera.

**Interpersonal Communication:**
Slide 8: Ahora ustedes van a hablar con 3 amigos sobre estas preguntas. *Teacher models what students are supposed to do.* Tienen 3 minutos para completar esta actividad.

**Presentational Communication:**
*Students report back interview findings to teacher*

Slide 9: Hoy vamos a hablar del tiempo. Al final de esta lección, ustedes podrán preguntar sobre el tiempo y describir algunos tipos de tiempo.

**New Material Presentation (Vocabulary Repetitions):**
Slide 10:
Repetition 1: ¿Qué tiempo hace?

<table>
<thead>
<tr>
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<th>¿Qué</th>
<th>¿Qué tiempo</th>
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<td>Cue Fade</td>
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Slide 11:
Repetition 2: Hace sol

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Slide 12:
Repetition 3: Hace calor

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Slide 13: Repetition 4: Hace viento

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Slide 14: Repetition 5: Hace frío

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Slide 15: Repetition 6: Hace buen tiempo

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Slide 16: Repetition 7: Hace mal tiempo

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<th>Hace mal</th>
<th>Hace mal tiempo</th>
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<tbody>
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Slide 17:

Comprehension Questions:

Can't Miss Questions
1. ¿De qué se trata esta presentación?
   A. Los deportes  B. Los Animales  C. El tiempo

Main Idea Questions
2. ¿Cómo se pregunta sobre el tiempo?
   A. ¿Cómo te llamas?  B. ¿Qué tiempo hace?  C. ¿Dónde vives?

Significant Detail Questions
3. ¿Qué tiempo hace en la foto?
   A. Hace frío.  B. Hace viento.  C. Hace calor

4. ¿Qué tiempo hace en la foto?
   A. Hace frío.  B. Hace viento.  C. Hace calor

Slide 18:

Rule Elicitation:
Teacher asks forced choice questions to help students fill in the blanks.

Hace ______ sol.
Hace ______ calor.
Hace ______ frío.
Hace ______ viento.
Hace ______ buen tiempo.
Hace ______ mal tiempo.

Teacher to Students:
One way to describe weather conditions is to use the verb Hacer in the following formula:
Hace + adjective. Please write this in your notebook.
Actividad 1

**Direcciones:** Llena el espacio con una de las palabras de la caja abajo.

<table>
<thead>
<tr>
<th>sol</th>
<th>azul</th>
<th>hora</th>
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<tbody>
<tr>
<td>frío</td>
<td>tiempo</td>
<td>viento</td>
</tr>
<tr>
<td>hace</td>
<td>calor</td>
<td>blanco</td>
</tr>
</tbody>
</table>

**MODELO:**

Hace ____ **sol** ____.

1.  

Hace ____________.

2.  

Hace ____________.

3.  

Hace ____________.

4.  

Hace ____________.

5.  

¿Qué tiempo ____?

6.  

¿Qué ______ hace?
Actividad 2

Direcciones: Con tu compañero, pon el papel que les doy en el centro de ustedes. Voy a decir una frase y necesitas encontrar la imagen que corresponde. Cuando la encuentras, pon tu dedo sobre la imagen ANTES de tu compañero. La primera persona que encuentra la foto correcta gana un punto.

Buena suerte :)

[Imágenes de varias imágenes]
Preguntas

1. ¿Te gusta el invierno?
2. ¿Te gusta el verano?
3. ¿Te gusta el otoño?
4. ¿Te gusta la primavera?
5. ¿Qué es tu estación favorita?
6. ¿Prefieres construir en invierno o hacer chocolate caliente?
7. ¿Prefieres nadar en el piscina o tomar nata de marias?
8. ¿Prefieres estar en la piscina o visitar con la familia?

¿Qué tiempo hace?

Hace sol

Hace calor
Hace viento

Hace frío

Hace buen tiempo

Hace mal tiempo

**Rule Elicitation**

______ sol.  
______ frío.  
______ calor.  

One way to describe weather conditions is to use the verb **Hacer** in the following formula:

______ viento.  
______ buen tiempo.  
______ mal tiempo.  

Hace + adjective  
Please write this in your notebook.
Lesson Plan 2: Calculating Temperature

Objectives:
Students will be able to:
- Identify Spanish-speaking countries that use Celsius degrees on a map.
- Convert Fahrenheit degrees and Celsius degrees.
- Convert Celsius degree to Fahrenheit degrees.

Content Standards Addressed:
- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.
- Standard 2.2: Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied.
- Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.
- Standard 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

Major Conceptual Question Students Will Answer:
- Why do some countries use Celsius degrees and others use Fahrenheit?
- How do I convert from Fahrenheit to Celsius and vice versa?

Concepts Used as a Foundation: Geography, Meteorology, Mathematics, Technology

Preparation:
- PowerPoint
- Class set of laptops
- Creation of Weebly Web site

PowerPoint Presentation:
Interpretive Communication:

Slide 2: Se usa para saber qué tiempo hace afuera. También se usa para tomar la temperatura de una persona. Los termómetros tienen estilos diferentes.

Slide 3: Mucha gente que trabaja para las noticias, como Al Roker, usan los termómetros para saber el tiempo y también muchas personas usan los termómetros en sus casas.

Slide 4: Los termómetros tienen una cosa roja adentro que se llama mercurio. El mercurio sube y baja con la temperatura.
Slide 5: Yo prefiero cuando el mercurio está alto porque hace buen tiempo.

Slide 6: Cuando el mercurio está alto puedo correr afuera. Puedo nadar en la piscina. También no tengo que llevar una chaqueta.

**Interpersonal Communication:**
Slide 7: Ahora ustedes van a hablar con 3 amigos sobre estas preguntas. *Teacher models what students are supposed to do.* Tienen 3 minutos para completar esta actividad.

**Presentational Communication:**
*Students report back interview findings to teacher*

Slide 8: En los Estados Unidos, usamos los grados Fahrenheit con la temperatura. Pero en otros lugares NO usan Fahrenheit en vez usan los grados Celsius. Vamos a explorar los países hispanohablantes que usan los grados Celsius. También vamos a explorar la relación entre Fahrenheit y Celsius.

Slide 9: Aquí es un mapa. Todos los países verdes usan los grados Celsius. ¡Casi todos lo usan! Los países rojos usan los grados Fahrenheit. Se puede ver que aquí en los Estados Unidos, usamos los grados Fahrenheit, pero no es muy común.

Slide 10: Entonces, vemos que todos los países que hablan español usan los grados Celsius. Esto incluye México, España, Honduras, Argentina, Chila y muchos más.

**New Material Presentation:**


Slide 13: ¿Cómo se sabe la temperatura si no se mide en los grados Fahrenheit? Bueno, hay una fórmula para convertir de Celsio a Fahrenheit.

\[ ^\circ C \times \frac{9}{5} + 32 = ^\circ F \]

*Teacher does practice conversion with students converting 32° C to °F*

Slide 14: También hay una fórmula para convertir de Fahrenheit a Celsio.

\[ (^\circ F - 32) \times \frac{5}{9} = ^\circ C \]

*Teacher does practice conversion with students converting 50° F to °C*

Slide 15: Aquí tenemos las temperaturas actuales de Santiago, Chile para esta semana. Vamos a practicar convirtiendo de Celsio a Fahrenheit. *Students initially work independently to convert temperatures from Celsius to Fahrenheit. Students are then instructed to work with a partner to double check answers.* *Teacher will then review answers as entire group.*
Activity:

Each student will be given a school laptop for individual use. Students will visit the Weebly Web site, http://temperaturas.weebly.com/index.html, created by the teacher. The Web site features actual weather reports for various cities in Latin America. Students are responsible for choosing three different cities and converting the minimum and maximum temperatures from Celsius into Fahrenheit. Students record their conversions on a separate piece of paper.
Bienvenidos al Weather Channel

En Español

Hoy van a completar su tarea usando este sitio de Web. Estar seguro leer todas las instrucciones para recibir puntos completos.

Buena suerte :)

Direcciones:

1. Escogen tres ciudades de la siguiente lista:
   - Madrid, España
   - Buenos Aires, Argentina
   - San Juan, Puerto Rico
   - México D.F., México
   - Lima, Perú
   - Ávila, España
   - Guadalajara, México
   - La Paz, Bolivia
   - Cartago, Costa Rica

2. Visitan la caja (tab) de cada ciudad en este sitio de Web.

3. Converten las temperaturas mínimas y máximas para cada día de Celcius a Fahrenheit.

4. Escriben sus respuestas en un papel.

5. Entregan la tarea para la próxima clase.

Esta tarea vale 10 puntos.
### Pronóstico a 10 días para Madrid, España

**Próximos 10 días**

<table>
<thead>
<tr>
<th>Lunes</th>
<th>Martes</th>
<th>Miércoles</th>
<th>Jueves</th>
<th>Viernes</th>
<th>Sábado</th>
<th>Domingo</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 a.m.</td>
<td>12 a.m.</td>
<td>1 a.m.</td>
<td>2 a.m.</td>
<td>3 a.m.</td>
<td>4 a.m.</td>
<td>5 a.m.</td>
</tr>
<tr>
<td>Día</td>
<td>Datos</td>
<td>Datos</td>
<td>Datos</td>
<td>Datos</td>
<td>Datos</td>
<td>Datos</td>
</tr>
<tr>
<td>Observado</td>
<td>Tema: 25°C</td>
<td>Min: 16°C</td>
<td>Max: 30°C</td>
<td>Humedad 35%</td>
<td>Viento: 10 km/h</td>
<td>Precip. 2%</td>
</tr>
<tr>
<td>Pronóstico</td>
<td>Partículas</td>
<td>Neblinas</td>
<td>Nebulosa</td>
<td>Nebulosa</td>
<td>Nebulosa</td>
<td>Nebulosa</td>
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</table>

### Pronóstico a 10 días para Buenos Aires, Argentina

**Próximos 10 días**

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<th>Jueves</th>
<th>Viernes</th>
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<th>Domingo</th>
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<td>Datos</td>
<td>Datos</td>
<td>Datos</td>
</tr>
<tr>
<td>Observado</td>
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<td>Min: 16°C</td>
<td>Max: 30°C</td>
<td>Humedad 35%</td>
<td>Viento: 10 km/h</td>
<td>Precip. 2%</td>
</tr>
<tr>
<td>Pronóstico</td>
<td>Partículas</td>
<td>Neblinas</td>
<td>Nebulosa</td>
<td>Nebulosa</td>
<td>Nebulosa</td>
<td>Nebulosa</td>
</tr>
</tbody>
</table>
### Preguntas

1. ¿Tienes un termómetro en la casa?

2. ¿Usas el termómetro cada día?

3. ¿Prefieres cuando las temperaturas están altas o bajas?

4. ¿Te gusta correr cuando la temperatura está alta?

5. ¿Prefieres correr o nadar en la piscina cuando la temperatura está alta?

### Fahrenheit vs. Celsius

<table>
<thead>
<tr>
<th>Celcio</th>
<th>Fahrenheit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 ° =</td>
<td>32 ° =</td>
</tr>
<tr>
<td>100 ° =</td>
<td>212 ° =</td>
</tr>
</tbody>
</table>
De Celcio a Fahrenheit

°C × 9/5 + 32 = °F

Ejemplo: 32 °C

32°C × 9/5 + 32 = °98.6

De Fahrenheit a Celcio

(°F - 32) × 5/9 = °C

Ejemplo: 50 °F

(50°F - 32) × 5/9 = 10°C
Lesson Plan 3: Graphing Temperatures

Objectives:
Students will be able to:
- Compare and contrast weather patterns in various Spanish-speaking cities
- Graph temperature conversion results from Day 2 using bar graphs
- Create a bar graph using Microsoft Excel

Content Standards Addressed:
- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.
- Standard 2.2: Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied.
- Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.
- Standard 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

Major Conceptual Question Students Will Answer:
- How do temperatures in various locations in Latin America compare with one another?

Concepts Used as a Foundation: Mathematics, Technology

Preparation:
- PowerPoint
- Graph Paper
- Class set of laptops

PowerPoint Presentation:
Interpretive Communication:

Slide 2: Aprendimos donde se mide la temperatura en Fahrenheit y donde se mide en Celsios. Sólo tres países no usan Celsios. Los Estados Unidos en uno de estos países.

Slide 3: Todos los países que hablan español miden la temperatura en Celsios.

Slide 4: Los grados Celsios miden entre cero grados y cien grados. Cuando la temperatura mide cero grados, tenemos hielo. Cuando la temperatura mide cien grados, tenemos agua en la forma de gas. Los grados Fahrenheit miden entre treinta y dos grados y dos cientos y doce grados.
Cuando la temperatura mide treinta y dos grados, tenemos hielo. Cuando la temperatura mide dos cientos y doce grados, tenemos agua en la forma de gas.

Slide 5: También ayer vimos dos fórmulas. La primera, \( ^\circ C \times \frac{9}{5} + 32 = ^\circ F \), se usa para convertir de Celsio a Fahrenheit.

Slide 6: La segunda, \((^\circ F - 32) \times \frac{5}{9} = ^\circ C\), se usa para convertir de Fahrenheit a Celsio.

Slide 7: Para su tarea, visitaron este sitio de Web. Encontraron tres ciudades y convirtieron de Celsio a Fahrenheit. Por favor, saquen esta tarea.

**Interpersonal Communication:**

Slide 8 Ahora ustedes van a hablar con 3 amigos sobre la tarea de anoche. *Teacher models what students are supposed to do.* Tienen 3 minutos para completar esta actividad.

**Presentational Communication:**

*Students report back interview findings to teacher*

Slide 9: Hoy vamos a usar los resultados de nuestra tarea para crear un gráfico de barras. Aquí es un ejemplo de un gráfico de barras. Escribimos los meses en el eje X y la temperatura de Fahrenheit y Celsio en el eje Y. También escribimos un título para el gráfico.

Slide 10: ¡Ahora les toca a ustedes! Van a hacer un gráfico de barras con su tarea. Pero primero, vamos a practicar juntos.

**Activity 1:**

Teacher models how to create a sample bar graph with students on the white board. The sample graph will use recent temperature data from Medellín, Colombia. Students observe, and if necessary, take notes on the graphing process.

**Activity 2:**

Teacher provides graph paper to students to create a bar graph for each of the three cities they investigated in Day 2.

**Activity 3:**

Teacher passes out individual laptops to each student for classroom use. Next, the teacher does a brief tutorial on how to create bar graphs using Microsoft Excel.

**Activity 4:**

Students use individual laptops to create three bar graphs in Microsoft Excel. The graphs the students will create on the computer are the same as the ones they created on graph paper in Activity 2. Students print their graphs and share results with a partner/small group.
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Labels: Paper Bar Graphs 1-3</strong></td>
<td>Missing ONE or MORE of the following:&lt;br&gt;-Title&lt;br&gt;-X Axis Label&lt;br&gt;-Y Axis Label&lt;br&gt;-Temperature in Celsius</td>
<td>Contains ALL of the following:&lt;br&gt;-Title&lt;br&gt;-X Axis Label&lt;br&gt;-Y Axis Label&lt;br&gt;-Temperature in Celsius</td>
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</tr>
<tr>
<td><strong>Creativity: Paper Bar Graphs 1-3</strong></td>
<td>Does not use colors (black and white do not count) to fill bars on graph</td>
<td>Uses ONE color to fill bars on graph</td>
<td>Uses TWO colors or MORE to fill bars on graph</td>
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<tr>
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<td>Graphs do not have straight lines</td>
<td>Graphs have straight lines</td>
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<tr>
<td><strong>Labels: Excel Graphs 1-3</strong></td>
<td>Missing ONE or MORE of the following:&lt;br&gt;-Title&lt;br&gt;-X Axis Label&lt;br&gt;-Y Axis Label&lt;br&gt;-Temperature in Celsius</td>
<td>Contains ALL of the following:&lt;br&gt;-Title&lt;br&gt;-X Axis Label&lt;br&gt;-Y Axis Label&lt;br&gt;-Temperature in Celsius</td>
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<td>Graphs do not have straight lines</td>
<td>Graphs have straight lines</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Total Points Received:** __________________
**Typhoon Weather**

- **SOCIAL**: See what people are saying about the weather in Typhoon.
- **Today**:
  - **Temp**: 15°C
  - **Weather**: Sunny
  - **Wind**: 10 knots

**World Map**

- **NORTH AMERICA**
- **SOUTH AMERICA**
- **CENTRAL AMERICA**
- **CARIBBEAN**

**Celsius to Fahrenheit Conversion**

- **Celsius**
- **Fahrenheit**
  - $0^\circ C = 32^\circ F$
  - $100^\circ C = 212^\circ F$

**Conversion Examples**

- **Example: 32°C**
  - $32^\circ C \times \frac{9}{5} + 32 = 98.6^\circ F$

- **Example: 50°F**
  - $(50^\circ F - 32) \times \frac{5}{9} = 10^\circ C$
Lesson Plan 4: Rainy Weather

Objectives:
Students will be able to:
- State characteristics of rainy weather conditions.
- Identify rainy weather conditions through the help of visual images.
- Identify clothing items/accessories that are needed in rainy weather conditions.
- Measure amount of rainfall in various Latin American countries.

Content Standards Addressed:
- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.
- Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.

Major Conceptual Question Students Will Answer:
- What clothing is needed in rainy weather conditions?
- What are the characteristics of rainy weather?

Concepts Used as a Foundation: Meteorology, Mathematics, Technology

Preparation:
- PowerPoint
- Copies of Activities 1 and 2
- Class set of laptops
- EPSON Projector

PowerPoint Presentation:
Interpretive Communication:
Slide 1: ¡Buenos días, clase! ¿Cómo están? ¿Qué tiempo hace hoy? Sí, hace muchísimo calor. La temperatura mide 27°C. ¡Hace mucho calor en la escuela! Pero cuando hace calor, estamos cerca de las vacaciones del verano. ¡Qué bueno!

Slide 2: Me gusta ir de vacaciones con mis padres y nuestro perro. ¿A ustedes les gusta ir de vacaciones con la familia? ¿Sí o no?

Slide 3: Muchas veces mis padres y yo acamparamos durante el verano. Dormimos afuera y oímos muchos sonidos por la noche. Vemos muchas estrellas. ¡Es muy divertido!

Slide 4: También nos gusta acampar porque Ziggy puede ir con nosotros. Muchos hoteles no permiten perros.
Slide 5: Cuando yo tenía 10 años, mis padres y yo visitamos Disney World en Florida. Fue una de mis vacaciones favoritas.

Slide 6: Mis vacaciones ideales sería visitar a Perú. Las ruinas antiguas del Machu Picchu son increíbles. Perú tiene mucha historia en su país y cultura.

Interpersonal Communication:
Slide 7: Ahora ustedes van a hablar con 3 amigos sobre estas preguntas. Teacher models what students are supposed to do. Tienen 3 minutos para completar esta actividad.

Presentational Communication:
Students report back interview findings to teacher

Slide 8: ¿Siempre hace buen tiempo cuando vamos de vacaciones? ¡No! Desafortunadamente no. Tenemos que prepararnos para muchos cambios en el tiempo. La lluvia es una de estas condiciones del tiempo. Hoy vamos a aprender sobre la lluvia y las cosas que necesitamos para cuando llueva.

New Material Presentation (Vocabulary Repetitions):
Slide 9:
Repetition 1: Hace lluvia.

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<th></th>
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<tbody>
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</tr>
<tr>
<td>Choral</td>
<td>2 3</td>
<td>4 5</td>
</tr>
<tr>
<td>Groups</td>
<td></td>
<td>6 7 8</td>
</tr>
<tr>
<td>Partner</td>
<td></td>
<td>9 10</td>
</tr>
<tr>
<td>Individual</td>
<td>11 12</td>
<td></td>
</tr>
<tr>
<td>Cue Fade</td>
<td>As Necessary</td>
<td>As Necessary</td>
</tr>
</tbody>
</table>

Slide 10:
Repetition 2: El trueno suena.

<table>
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<th></th>
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Slide 11:
Repetition 3: El relámpago alcanza.

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<td>3 4</td>
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<td>5 6</td>
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<td>Partner</td>
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</table>

Slide 12:
Repetition 4: Llevo paraguas

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<td>9 10</td>
</tr>
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<td>Cue Fade</td>
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Slide 13:
Repetition 5: Llevo botas de lluvia

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Slide 14:
Repetition 6: Llevo impermeable

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</tr>
<tr>
<td>Cue Fade</td>
<td>As Necessary</td>
<td>As Necessary</td>
</tr>
</tbody>
</table>
Slide 15:

Comprehension Questions:

**Can’t Miss Questions**

1. ¿De qué se trata esta presentación?
   A. El acuario  
   B. La lluvia  
   C. La comida

**Main Idea Questions**

2. ¿Qué tiempo hace que está lloviendo?
   A. Hace buen tiempo.  
   B. Hace mal tiempo.

**Significant Detail Questions**

3. ¿Qué hace el trueno?
   A. El trueno brilla.  
   B. El trueno alcanza.  
   C. El trueno suena.

4. ¿Cuál cosa NO es necesario cuando llueve?
   A. El impermeable  
   B. El sombrero  
   C. Las botas de lluvia

Activity 1: YouTube Weather Forecast

Teacher connects classroom computer to Internet and visits the following Web site:
http://www.youtube.com/watch?v=wnkxP9Q4new

The YouTube video features a brief weather forecast for Central and South America by a Native speaker. Students will listen to the weather forecast a total of three times. Prior to hearing the forecast, students will receive Activity 1 worksheet. Teacher and students will read directions
together before starting the activity. Students watch the video clip twice and then work individually on the worksheet. After a few minutes, students are paired with a partner to compare answers. The video is then played once more and pairs have a final minute to review answers. Next, teacher and students review worksheet answers as a large group.

**Activity 2: Measuring Rainfall**
Teacher has set up 20 different stations around the classroom that are divided into groups. Each station represents a Spanish-speaking city and has a beaker tube with a certain amount of rainfall. Students will observe 10 of the 20 beaker tubes and measure in centimeters the amount of rainfall. Students will record their answers on a provided sheet of paper.

*(If Time Permits)*
**Activity 3: Graphing Rainfall**
Students will take recorded rainfall measurements and create bar graphs using Microsoft Excel. Students will choose 3 city rainfall measurements and create bar graphs using individual laptops. Once students have created three graphs, students will be paired with a partner. Together the students will create a Weebly page featuring the Excel graphs.
Activity 1

Nombre: ________________________________
Hr: ________________________________

¡El Pronóstico de YouTube!

Parte 1:
**Direcciones:** Traces un círculo alrededor de las palabras que oyes durante el pronóstico.

<table>
<thead>
<tr>
<th>Trueno</th>
<th>Hace frío</th>
<th>Botas de lluvia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraguas</td>
<td>Hace sol</td>
<td>Hace viento</td>
</tr>
<tr>
<td>Gorra</td>
<td>Primavera</td>
<td>Tormento</td>
</tr>
<tr>
<td>Verano</td>
<td>Impermeable</td>
<td>Hace buen tiempo</td>
</tr>
</tbody>
</table>

Parte 2:
**Conteste las preguntas según el pronóstico de YouTube.**

1. ¿Hace lluvia en Bogotá, Colombia?

2. ¿Qué tiempo hace en Monterray, México?

3. ¿Qué tiempo hace en Tegucigalpa, Honduras?

4. ¿Prefieres estar en San José, Costa Rica o Managua, Nicaragua? ¿Por qué?

5. ¿Cuántos grados Celsios mide en Santiago, Chile?
Activity 2

Lluvia Cae

Modelo:
Buenos Aires, Argentina
Hay 11 centímetros de lluvia en Buenos Aires, Argentina.

1. Tegucigalpa, Honduras

2. Puntarenas, Costa Rica

3. Trinidad, Bolivia

4. Querétaro, México

5. Montevideo, Uruguay

6. San Isidoro, Costa Rica

7. La Palma, Panamá

8. Barcelona, España

9. Santa Cruz, Bolivia

10. Salto, Uruguay
<table>
<thead>
<tr>
<th>Preguntas</th>
<th>Sí</th>
<th>No</th>
<th>Ambos</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ¿Prefieres viajar con la familia o con amigos?</td>
<td></td>
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<td>2. ¿Prefieres viajar con tu animal doméstico?</td>
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<tr>
<td>3. ¿Qué descubres que es lo que más te gusta de tu ciudad natal?</td>
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<td>4. ¿Dónde estás tus vacaciones ideales?</td>
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<td>5. ¿Qué descubres que es lo que más te gusta de tu ciudad natal?</td>
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<td>6. ¿Qué descubres que es lo que más te gusta de tu ciudad natal?</td>
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<td>7. ¿Qué descubres que es lo que más te gusta de tu ciudad natal?</td>
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<td>8. ¿Qué descubres que es lo que más te gusta de tu ciudad natal?</td>
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<tr>
<td>9. ¿Qué descubres que es lo que más te gusta de tu ciudad natal?</td>
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<tr>
<td>10. ¿Qué descubres que es lo que más te gusta de tu ciudad natal?</td>
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</tr>
</tbody>
</table>

4/30/2012
Comprehension Questions

Can't Miss Questions
1. ¿Qué se ha visto en la presentación?
   A. El abrigo
   B. La lluvia
   C. La tormenta

Main Idea Questions
2. ¿Qué tiempo hace que está llovizna?
   A. Hace buen tiempo
   B. Hace mal tiempo

Significant Detail Questions
3. ¿Cuál es el tiempo?
   A. El lluvioso
   B. El viento alegre
   C. El nublado cielo
4. ¿Cuál cosa NO es necesaria cuando llueve?
   A. El impermeable
   B. El paraguas
   C. Las bolas de lana
Lesson Plan 5: Understanding Tornados

Objectives:
Students will be able to:
- Identify the characteristics of tornados
- Identify the causes of tornados

Content Standards Addressed:
- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.
- Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.
- Standard 5.2: Students show evidence of becoming life-long learners by using the language for personal enjoyment and enrichment.

Major Conceptual Question Students Will Answer:
- What are the characteristics and causes of tornados?

Concepts Used as a Foundation: Science, Technology

Preparation:
- PowerPoint
- Class set of laptops

PowerPoint Presentation:
Interpretive Communication:

Slide 1: Buenos días, clase. ¿Cómo están hoy? ¿Qué tiempo hace afuera? Sí, hoy hace mal tiempo porque está lloviendo. Llevé paraguas e impermeable a la escuela hoy. ¿Alguien más llevó paraguas o impermeable?

Slide 2: En general, ¿hace buen tiempo o hace mal tiempo en los Estados Unidos? ¿Qué creen ustedes?


Slide 4: En Texas hace mucho calor y hace mucho sol. Muchas veces cuando hace calor es posible tener tormentas y tornados.

Slide 5: ¿Sabían que en 1995, hubo 225 tornados en Texas? ¡Muchos tornados! Hoy vamos a explorar los tornados usando los ordenadores.
Activity 1: Tornado Online Activity

Students are divided into three groups: Equipo Azul, Equipo Verde, and Equipo Rojo. Each group receives a Web site that they will explore to learn about tornados. Teacher will provide students with individual laptops to complete this activity. Students will explore one of the Web sites listed below:

1. Equipo Azul
2. Equipo Verde
   http://www.geosalud.com/desastres/tornados.htm
3. Equipo Rojo
   http://www.cucluna.com/%C2%BFque-es-un-tornado-fenomeno-atmosferico/

Students will explore the Web site individually on their laptop. During this time, each student will then write down 5 interesting facts (in the target language) they learned about tornados from their assigned Web site. Next, students will rejoin their assigned group to discuss the article and share the interesting facts they wrote down. After listening to other group member’s interesting facts, students will make any adjustments to their own fact list.

Activity 2: Tornado Threaded Discussion

Following the group discussions, students will take their own list and create a threaded discussion post on the class Wikispaces page. Students are responsible for reading all student posts from the other two groups. Each student must then respond/comment on four other student posts on the online threaded discussion forum (in the target language).
Lesson Plan 6: Making a Tornado

Objectives:
Students will be able to:
- Create a tornado simulation.
- State the steps needed to create a simulated tornado.

Content Standards Addressed:
- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.
- Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.
- Standard 5.2: Students show evidence of becoming life-long learners by using the language for personal enjoyment and enrichment.

Major Conceptual Question Students Will Answer:
- How can I simulate a tornado experiment?

Concepts Used as a Foundation: Science

Preparation:
- Tornado activity materials:
  - Piece of wood (10 x 12 inches)
  - Glue gun
  - Vinyl sheets (2)
  - Small hand-held fan
  - Small cup
  - Clear plastic plant saucer
  - Water (1/2 cup)
  - Dry ice

Activity 1:
Teacher and students will create a simulation of a tornado in the classroom. Teacher will model how to do experiment first by using a Gouin series. Following the Gouin series, students will be assigned groups to actually complete the simulation (Activity 2).
Repetition 1:
Pego la taza a la madera.

<table>
<thead>
<tr>
<th></th>
<th>Pego la taza</th>
<th>a la madera</th>
<th>Pego la taza a la madera</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
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<td>1 2 3 8</td>
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<tr>
<td>Choral</td>
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<tr>
<td>Cue Fade</td>
<td>As Necessary</td>
<td>As Necessary</td>
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</table>

Repetition 2:
Pego el vinilo a la taza.

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<tr>
<th></th>
<th>Pego el vinilo</th>
<th>a la taza</th>
<th>Pego el vinilo a la taza</th>
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<tr>
<td>Groups</td>
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<td>Cue Fade</td>
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Repetition 3:
Pego el vinilo al otro lado.

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<tr>
<th></th>
<th>Pego el vinilo</th>
<th>al otro lado</th>
<th>Pego el vinilo al otro lado</th>
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</thead>
<tbody>
<tr>
<td>Model</td>
<td>1 2</td>
<td>1 2</td>
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<td>Cue Fade</td>
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</table>

Repetition 4:
Eche el agua dentro de la taza.

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<tr>
<th></th>
<th>Echo el agua</th>
<th>dentro de la taza</th>
<th>Echo el agua dentro de la taza</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
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<td>1 2</td>
<td>1 2 8 9</td>
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<td>Choral</td>
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</table>
Repetition 5:
Pongo el hielo seco dentro de la taza.

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<th></th>
<th>Pongo el hielo seco</th>
<th>dentro de la taza</th>
<th>Pongo el hielo seco dentro de la taza</th>
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</thead>
<tbody>
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<td>Choral</td>
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<td>Groups</td>
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<td>Cue Fade</td>
<td>As Necessary</td>
<td>As Necessary</td>
<td>As Necessary</td>
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Repetition 6:
Pongo el platillo encima del vinilo.

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<th></th>
<th>Pongo el platillo</th>
<th>encima del vinilo</th>
<th>Pongo el platillo encima del vinilo</th>
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</thead>
<tbody>
<tr>
<td>Model</td>
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<td>Choral</td>
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<td>Cue Fade</td>
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Repetition 7:
Pongo el ventilador arriba del platillo.

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<tr>
<th></th>
<th>Pongo el ventilador</th>
<th>arriba del platillo</th>
<th>Pongo el ventilador arriba del platillo</th>
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</thead>
<tbody>
<tr>
<td>Model</td>
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<td>Cue Fade</td>
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Activity 2:
After the Gouin series, students are divided into groups to complete the tornado simulation experiment with classmates. The teacher has all materials prepared ahead of time and provides the necessary equipment to each group. As students work cooperatively, the teacher circulates the room to help students with experiment and observes group interactions.

Activity 3:
On a separate sheet of paper, students write the steps to make the tornado and draw a picture to accompany each step in the procedure.
Lesson Plan 7: Exploring Country Specific Weather Patterns (Day 1)

Objectives:
Students will be able to:
- Compare and contrast weather/climate pattern throughout Latin America.
- Present information on weather/climate patterns in a Spanish-speaking country.

Content Standards Addressed:
- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.
- Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.
- Standard 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

Major Conceptual Question Students Will Answer:
- How do climate and weather patterns change throughout Latin America?

Concepts Used as a Foundation: Geography, Science, Technology

Preparation:
- PowerPoint
- Class set of laptops

PowerPoint Presentation:
Interpretive Communication:

Slide 2: Pero, no es necesario tener mucha tierra para tener un clima diverso. España es más pequeña que los Estados Unidos y todavía tiene un clima diverso.

Slide 3: España se sitúa en Europa. Es una península porque tiene agua en todos lados menos uno. Este país tiene 4 climas básicos: el oceánico, el mediterráneo, el de montaña y el de las Islas Canarias.

Slide 4: El clima oceánico se encuentra en el norte. Tiene mucha lluvia y no hay gran diferencia entre las temperaturas máximas y mínimas. Hace frío en esta parte del país. El clima mediterráneo tiene veranos secos y poca lluvia durante el año. Mientras el clima de montaña tiene una abundancia de lluvia y nieve. También tiene mucho húmedo. Las Islas Canarias tienen temperaturas suaves y tienen poca lluvia.
**Interpersonal Communication:**
Slide 5: Ahora ustedes van a hablar con 3 amigos sobre estas preguntas. *Teacher models what students are supposed to do.* Tienen 3 minutos para completar esta actividad.

**Presentational Communication:**
*Students report back interview findings to teacher*

Slide 6: Hoy vamos a investigar el clima y el tiempo en los países de Latinoamérica. ¿Los países de Latinoamérica tienen climas diversos como los Estados Unidos? Vamos a ver.

**Activity 1: Online Research**
Students are divided into six groups. All groups are assigned a Spanish-speaking country in Latin America to explore. Each student will then select any city from their assigned country and explore weather patterns. Students will use individual laptops to find the following information about the city they have selected:
1) 7 day weather forecast
2) Information about the various climates in their country
Once this information has been collected, students will rejoin their groups and share the information they found.

**Activity 2: Presentation Preparation**
Each group will create either a Blog or Weebly Web site to present their research findings to the class. The group will work together using the laptop to create the presentation. As the students work collaboratively, the teacher provides help with Blog and Weebly creation. Students will have the remaining class period to create their Blog or Weebly. The following day, students will present their information in the target language using the technology medium.
Lesson Plan 8: Exploring Country Specific Weather Patterns (Day 2)

Objectives:
Students will be able to:
- Compare and contrast weather/climate pattern throughout Latin America.
- Present information on weather/climate patterns in a Spanish-speaking country.

Content Standards Addressed:
- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.
- Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.
- Standard 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

Concepts Used as a Foundation: Technology

Preparation/Materials:
- Single computer with Internet access
- EPSON Projector

Activity 1: Group Meeting
Students will be allowed 15 minutes at the beginning of class to make any last minute preparations/review for their presentation on climate patterns in their assigned country. The teacher ensures that classroom technology is ready for student presentation.

Activity 2: Group Presentations
Each student group will present their blog or Weebly Web page to inform their classmates about weather and climate patterns in their assigned country. Each student will be responsible for talking about trends in their selected city. The presentation will be given in the target language.

Activity 3:
When students are not presenting, they must write down two interesting facts mentioned by the other groups. Upon completion of all group presentations, students will then work in pairs, small groups, and large groups to discuss what they learned about weather/climate patterns in Latin America. Teacher will facilitate group discussion.
Lesson Plan 9: Review for Chapter Test

Objectives:
Students will be able to:
- Ask about weather conditions.
- State common weather conditions.
- Identify weather conditions with the help of visual images.
- Identify Spanish-speaking countries that use Celsius degrees on a map.
- Identify the characteristics and causes of tornados.
- Compare and contrast weather/climate pattern throughout Latin America.
- State the steps needed to create a simulated tornado.

Content Standards Addressed:
- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

Concepts Used as a Foundation: Technology

Preparation/Materials:
- Class set of laptops
- EPSON Projector

Activity 1:
Students are divided into small groups of 3-4. Each group is assigned a concept that was learned in the chapter. The group will use a laptop to create a brief PowerPoint or Prezi presentation reviewing the assigned concept. Students will then present the brief presentation to the class.

Activity 2:
The teacher provides students with individual laptops. Students visit the following Web site that features several review games on weather expressions learned in class:

Activity 3:
Prior to the class period: The teacher assembles a collage of images that correspond to various weather conditions and items needed during these conditions. These images are all placed on a single PowerPoint slide. Students are divided into two equal groups. The teacher uses the EPSON projector to display the PowerPoint collage slide. One student from each team goes up to the front of the class, facing the teacher and their classmates. The teacher says the phrase/vocabulary word that pertains to one of the images in the collage. The student who taps the correct image first earns one point for their team. After all students have two opportunities to play, the teacher tallies up the scores and determines the winning team.
¿Qué tiempo hace?
Lesson Plan 10: Chapter Test

Nombre: ______________________
Hr: ______________________

Examen sobre el Tiempo
Test to be taken online at the following Web site: http://www.quia.com/quiz/3666521.html

1. Escribe la frase que corresponde con la imagen. (1 point)

2. Escribe la frase que corresponde con la imagen. (1 point)
3. Escribe la frase que corresponde con la imagen. (1 point)

4. Escribe la frase que corresponde con la imagen. (1 point)
5. Escribe la frase que corresponde con la imagen. (1 point)

6. Escribe la frase que corresponde con la imagen. (1 point)

7. Identifica la cosa que no cabe. (1 point)
   - El impermeable
   - El paraguas
   - Las botas de lluvia
   - Las gafas del sol
8. Identifica la cosa que no cabe. (1 point)
   - La lluvia
   - El trueno
   - El relámpago
   - El sol

9. Identifica TODAS las materales que usamos para crear el tornado. (8 points)
   - Agua
   - Botella de plástico
   - Impermeable
   - Hielo seco
   - Madera
   - Paraguas
   - Pegamento
   - Platillo
   - Taza
   - Vinilo
   - Ventilador

10. Identifica en orden los trámites para crear un tornado. (7 points)

   ____ Pego el vinilo al otro lado.
   ____ Pongo el platillo encima del vinilo.
   ____ Echo el agua dentro de la taza.
   ____ Pego la taza a la madera.
   ____ Pego el vinilo a la taza.
   ____ Pongo el ventilador arriba del platillo.
   ____ Pongo el hielo seco dentro de la taza.
11. Escribe dos características de un tornado. (1 point)

12. Escribe la fórmula de convertir la temperatura de Celsius a Fahrenheit. (1 point)

13. Escribe la fórmula de convertir la temperatura de Fahrenheit a Celsius. (1 point)

(14 points)

**Pronóstico a 10 días para Madrid, España**

<table>
<thead>
<tr>
<th>Próximos 10 días</th>
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</thead>
<tbody>
<tr>
<td>Lunes</td>
</tr>
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</tr>
<tr>
<td>16 Abril</td>
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<tr>
<td><strong>Observado</strong></td>
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<tr>
<td>Máxima 12°C</td>
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<td>Mínima 5°C</td>
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<tr>
<td>Precip. ND</td>
</tr>
<tr>
<td>Parcialmente nublado</td>
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<tr>
<td>Por la noche</td>
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<tr>
<td>Probabilidad de precip.</td>
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<tr>
<td>Viajes para el fin de semana</td>
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**Día de la semana** | **Mínimo en Fahrenheit** | **Máximo en Fahrenheit**
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<td>Lunes</td>
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<td>Sábado</td>
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<td>Domingo</td>
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</tbody>
</table>
15. Convierte las temperaturas mínimas y máximas de Fahrenheit a Celsio. Pon tus respuestas en la tabla abajo. (14 points)

### Pronóstico a 10 días para Ypsilanti, Michigan, Estados Unidos

#### Próximos 10 días

<table>
<thead>
<tr>
<th></th>
<th>Lunes</th>
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<th>Miércoles</th>
<th>Jueves</th>
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<td>19 Abril</td>
<td>20 Abril</td>
<td>21 Abril</td>
<td>22 Abril</td>
</tr>
<tr>
<td>Lluvia débil matinal / Viento</td>
<td>Observado</td>
<td>Observado</td>
<td>Observado</td>
<td>Observado</td>
<td>Observado</td>
<td>Observado</td>
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</tr>
<tr>
<td>Máxima 74°F</td>
<td>Mayormente soleado</td>
<td>Mayormente soleado</td>
<td>Mayormente soleado</td>
<td>Lluvia débil por la tarde</td>
<td>Lluvia débil por la tarde / Viento</td>
<td>Nubes por la mañana / Sol por la tarde</td>
<td></td>
</tr>
<tr>
<td>Mínima 49°F</td>
<td>Precip. 0 pulg.</td>
<td>Precip. 0 pulg.</td>
<td>Precip. 0 pulg.</td>
<td>Máxima 75°F</td>
<td>Máxima 77°F</td>
<td>Máxima 59°F</td>
<td></td>
</tr>
<tr>
<td>Mínima 41°F</td>
<td></td>
<td></td>
<td></td>
<td>Mínima 41°F</td>
<td>Mínima 42°F</td>
<td>Mínima 38°F</td>
<td></td>
</tr>
<tr>
<td>Precip. 0.05 pulg.</td>
<td></td>
<td></td>
<td></td>
<td>Precip. 0.05 pulg.</td>
<td></td>
<td>Precip. 0.05 pulg.</td>
<td></td>
</tr>
</tbody>
</table>

#### Día de la semana | Mínimo en Celsio | Máximo en Celsio
---|------------------|------------------
Lunes |                  |                  |
Martes |                  |                  |
Miércoles |                  |                  |
Jueves |                  |                  |
Viernes |                  |                  |
Sábado |                  |                  |
Domingo |                  |                  |
Works Cited


Lonergan, David. “Misuse the Power, Miss the Point.” Community and Junior College Libraries, 17:1, 31-34.


