Major three-year study on Early Education to launch in January 2010

One of the most prevalent questions in Early Childhood Education for deaf children has always been: what works for deaf children in reading? From methods of instruction, to family support, to materials and resources, to linguistic access, there are many unanswered questions regarding what it takes for students to become successful readers.

To begin to answer some of these questions, VL2 is undertaking a three-year Early Education Longitudinal Study (VL2-EELS). We will collect data from all over the United States from parents, teachers, preschool and early education administrators, and deaf children in order to track their growth in early literacy and language skills.

The VL2-EELS study is patterned after the recently completed Pre-Elementary Education Longitudinal Study (PEELS) conducted by the United States Department of Education. While this study presents a comprehensive picture of services received by children with disabilities across the United States, it does not adequately represent the educational experiences of deaf children. VL2-EELS is designed to remedy the shortcomings of the PEELS project. Sampling for VL2-EELS will include the full range of academic programs serving children who are deaf. Questions have been added and modified from the original PEELS to more accurately reflect current educational practice for young deaf children, and to gather data on cognitive, linguistic, and literacy constructs that are at the core of other VL2 inquiries.

How will the VL2-EELS work?

VL2-EELS will sample children from three age groups: three-year olds, four-year olds, and five-year olds. Longitudinal studies allow researchers to study how children grow and develop. With a broad set of measures, and a national sample, we will learn a considerable amount about what contributes to literacy development..."

-Dr. Thomas Allen, Principal Investigator
Understanding how the Magnetoencephalography Works

David Quinto-Pozos (University of Texas, Austin) and Clifton Langdon (Gallaudet University) are VL2 researchers working on a new technology called Magnetoencephalography, (MEG) which allows you to track and see the human brain in action. Quinto-Pozos recently attended a conference in Finland on MEG technology, called “Learning, Mind, and Brain” at the Helsinki University Museum. At the conference, Dr. Quinto-Pozos learned how this technology might help VL2 projects in the future.

MEG joins the ranks of EEG (electroencephalography) and fMRI (functional magnetic resonance imaging) to help researchers, scientists and doctors evaluate patterns occurring in the brain. Although MEG is most similar to EEG, it allows clearer data recordings, which is helpful for sign language users.

As Quinto-Pozos described, “This would make it possible to take a look at signed language production that is produced in relatively ‘normal’ ways. For example, as part of the demonstration [at the conference in Helsinki], I asked about signed language production, and they had me get in the scanner and sign while they collected data. Their quick first analysis of a portion of the data showed that the movement of my arms and upper body didn’t destroy the signal. It wasn’t as if you could move EXACTLY as if signing normally (e.g., signs with contact on the head couldn’t be fully articulated because of the machine, the torso probably couldn’t move too much with role shifts, although perhaps that could be looked at further), but it didn’t feel too different from “normal” signing.”

However, as Quinto-Pozos pointed out, a drawback of using MEG technology is the associated costs—up to $600 per hour for use. VL2 will explore this technology through working with other Science of Learning Centers and affiliated universities. For instance, Clifton Langdon is working with the University of Maryland on using MEG to collect linguistic data.

For more information on MEG, go to www.neuroevolution.net

Q&A with Selina Agyen

Q: what do you do at VL2?

As the database assistant for the center, I help with the scheduling of students to participate in ongoing research projects, maintaining data files, entering study data into the computer for analysis, and pulling data files for researchers to use when they analyze data. It’s not easy, let me assure you. The researchers have their own schedules that have to be matched to the students’ schedules. Some projects have multiple components that need to be scheduled in the appropriate order. So I have to make sure everything is synchronized.

Q: really, what kind of research?

I mainly help with the scheduling for the Toolkit project, which is a project that will help establish the validity and reliability of a large number of assessment tools when used with deaf adults. In addition, I have been working with Dr. Diane Clark, on a number of her research projects.

Q: so, how did you get into this?

Pure luck? No, no, it took plenty of patience on my part. When I was finishing up my bachelors’ degree in Psychology, I became intrigued with the goals of VL2. I found out about the job opening and jumped right in!

Q: what’s next for you?

I’m not done with school. I’d like to return and pursue my doctoral degree in Psychology and design and run my own research projects. But, I’d never replace the experiences I am having with VL2. I know they will help me fulfill my long-term dreams.

For more information on MEG, go to www.neuroevolution.net
and five-year olds. VL2-EELS hopes to collect data from 200 children at each age group. Data collection will take place in 2010, 2011, and 2012 for these samples of children. When completed, the VL2-EELS database will be the most comprehensive data set ever collected from this population of deaf children. The database will be available to VL2 researchers for statistical analysis and modeling of developmental processes.

As a means for recruiting a sample for this project, VL2 will use its P-12 School Partnership program. Ninety schools from across the United States have agreed to be school partners with VL2. Each of these schools has been recruited to participate in VL2-EELS. (Note: we are always interested in adding additional school partners; if interested please send an email to VL2@gallaudet.edu.)

What’s the ultimate goal of this study?

The VL2 EELS study strives to find connections between visual language usage among deaf children and academic performance in reading. Furthermore, it is hoped that this study will provide insight into parents’ expectations for their child, teaching methods for developing literacy skills, and the roles of different philosophies in deaf education.

The VL2-EELS assessment team will travel to schools around the country and work with them to administer the direct child assessments. The team is comprised of Shilpa Hanumantha, Leah Murphy, Millicent Musyoka, and Elizabeth Adams. Shilpa holds her doctoral degree in psychology from Gallaudet University and is currently a post doctoral fellow with VL2. Leah Murphy and Elizabeth Adams are pursuing doctorates in psychology at Gallaudet. Millicent Musyoka is pursuing her doctorate in education at Gallaudet.

THE RESEARCH TEAM

Thomas Allen, who is the Director of VL2, is the Principal Investigator of VL2-EELS. He oversees all phases of the project and will be one of the principal analysts for study data.

Donna Morere, from Gallaudet’s Department of Psychology, is directing the individual assessments for the project. Her job is to select the cognitive, linguistic, academic, and behavioral assessments used in the study and to train the assessment team.

Sen Qi, a Research Scientist with the Gallaudet Research Institute (GRI), is the principal statistician for VL2-EELS. He oversees sampling procedures and will perform statistical modeling of study data as it is being collected.

Carol Connor, a reading specialist from the Florida Center for Reading Research at Florida State University, serves as a consultant for the project. She reviews study tools and designs, and she provides advice on a range of study issues.

Sue Hotto, a Research Associate with the GRI, serves as the VL2-EELS project manager. She is leading the survey design and production, and she is the point of contact between project participants and the research team. She oversees all mailings and other communications with school and parent participants.

THE ASSESSMENT TEAM

Shilpa Hanumantha
Leah Murphy
Millicent Musyoka
Elizabeth Adams
Dr. Singleton presents VL2 work at State Commission in Illinois

On August 27, 2009, Dr. Jenny Singleton presented her work with VL2 at the Illinois Deaf and Hard of Hearing Commission, which was streamed live online. Dr. Singleton took this opportunity to continue her community outreach while she discussed her research projects and the ethics related to research in the deaf community. Because research with deaf participants is often videotaped, one cannot de-identify the data that is collected. Therefore, protecting the privacy of the participants brings with it complex ethical issues. Participants need to be fully briefed about how the data will be handled.

Dr. Singleton has led VL2 in the design of a multi-level informed consent agreement that discusses how the data will be used and who will have access to seeing the videotapes. In this agreement, participants are asked a series of questions. First, they are asked to give consent as to who will have access to their videotape—only the original research team, all researchers affiliated with VL2, or researchers outside of VL2 who may want to use the VL2 Video Archives. Next, they are asked if clips from their videotapes can be shared with the general public for educational purposes. Finally, they are told that in 10 years the videotapes will either be destroyed or they can allow them to be given to the Gallaudet University Library Video Archive. Participants have been generous in allowing clips to be used at professional meetings – with the full understanding that someone in the audience may know them. We are grateful to these individuals who have worked with us to increase our understanding of visual languages and visual learning.

Research on Black Deaf Individuals’ Reading Skills

Candace Myers, a senior at Gallaudet majoring in Psychology, has every reason to be proud. Last summer, along with three other students, Candace participated in the Summer Undergraduate Research Fellowship program run by Dr. Diane Clark. Candace was given the opportunity to “get her feet wet” and develop an understanding of the research process from start to finish. Along with the other fellows, Candace designed and conducted her research study, analyzed the data, and presented the findings at a poster session at the end of the fellowship. Candace’s topic is one that is close to her heart—how Black Deaf children learn to read.

As a Black Deaf young woman, Candace herself had her share of struggles with reading. In the 4th grade, she transferred schools, and missed vital parts of the reading curriculum. What was once her strong point now became her weakness. Candace explained that her parents had to work and had little time to support her in reading. At her new school, Candace noted how her teachers lowered their expectations for her—an experience shared by many of her Black Deaf friends.

Teachers lowered their expectations for her—an experience shared by many of her Black Deaf friends.

As a Black Deaf student, Candace needed to look at possible interventions to support the development of Black Deaf individuals reading skills. Candace’s paper, co-authored by VL2 researchers and graduate assistants, titled, “Individuals’ Reading Skills: Influence of ASL, Culture, Family Characteristics, Reading Experience, and Education,” has been accepted for publication in The American Annals of the Deaf.

Two papers accepted for publication!

Now entering her third year working as a VL2 graduate assistant under the supervision of Diane Clark, Melissa L. Anderson is also busy pursuing her doctoral studies in Clinical Psychology, focusing on issues of intimate partner violence and women’s trauma in the Deaf community. Two of her papers have been accepted for publication and are in press 2010. One manuscript titled “Intimate Partner Violence against Deaf Female College Students” will be published in Violence Against Women. The second manuscript, “Internal Consistency and Factor Structure of the Revised Conflict Tactics Scales in a Sample of Deaf Female College Students,” will appear in the Journal of Family Violence.
Starting in June 2009, Dr. Peter Hauser, Director of the Behavioral and Cognitive Constructs Strand, has been racking up frequent flyer miles, flying around the world to work on his numerous research projects, as well as to give presentations, and to attend conferences.

In June, Peter helped VL2 kick off the Summer Undergraduate Research Fellowship program at Gallaudet. While he was away from RIT, he flew to Colorado to give a presentation at the Deaf Youth USA Camp in Ft. Collins, Colorado. This adventure was his first experience doing a formal presentation after waking up in a tent and not having time for a shower. In July, after attending two conferences in Chicago, he went to NYC for a short vacation followed by a VL2 Retreat in Aspen. In August, Peter had a poster presentation in Rovereto, Italy at the conference on Cross-Modal Neuroplasticity in Deafness and Cochlear Implants with Dr. Matt Dye from the University of Illinois-Urbana Champagne focusing on their work with Dr. Daphne Bavelier (University of Rochester). This work has been funded by Daphne’s NIH grant and VL2.

After gallivanting during the summer, Peter decided to stay in Rochester during September to work with his research staff, graduate, and undergraduate students at the Deaf Studies Laboratory. He trained his staff on how to administer three different experiments (all VL2 projects) that included: (1) the visual attention project with Matt Dye; (2) the impact of language competency on the development of advanced brain functions; and, (3) the comparison of how deaf students process reading information in four countries.

During the month of October, Peter was an invited speaker at the Rochester School for the Deaf during their professional development day. After finishing the presentation, he rushed to the airport to meet his research associate, Erin Spurgeon to fly to Israel for an International VL2 meeting at the University of Haifa. This meeting also included collaborators from the University of Anakara, Turkey who came to discuss the project comparing deaf individuals’ reading across languages. During the visit to Israel, Peter gave a presentation to the deaf students at the Carmel Zvulun School. Near the end of the trip, Peter and Erin joined Dr. Carol Padden to visit a remote Bedouin village where they interacted with three generations of the tribe who use Arabic Bedouin Sign Language (ABSL)—a language that is only three generations old.

In November, Peter flew to the Czech Republic to present at the Charles University in Prague on deaf learners’ cognitive and psychosocial development. His three days of lectures were packed with students, teachers, and professors. While in Prague, he visited a local school for the deaf and two deaf organizations. Less than a week after the trip to the Czech Republic, Peter flew to Fremont, California to present to the teachers, administrators, and staff at the California School for the Deaf (CSD). He also gave a presentation to the local deaf community in Fremont on current trends in deaf research and how research can be used to fight for social justice. Erin and Geo Kartheiser (Matt Dye’s research assistant) were already at CSD collecting data. They then flew to the Texas School for the Deaf to collect more data while Peter flew back to Rochester to prepare his remaining staff for data collection at the Rochester School for the Deaf.

Peter’s travel schedule continues in the spring. He will be giving a presentation to the teachers, administrators and staff at the New Mexico School for the Deaf in February. In March, he will be giving the keynote address at the Mental Health and Deafness conference in Buenos Aires, Argentina. Then, in April, Peter will go to Turkey to meet with the International VL2 team working on the reading project. Between these trips, Peter will be traveling to several schools for the deaf with his Rochester team to collect more research data.

People have asked Peter how he handles all of this travel. He replied, “airports and airplanes are the best places to get work done!” Peter does a lot of his research writing while traveling. He does not mind living out of his suitcase.

“This experiences I am getting through traveling to different schools, conferences and universities have been incredible for my professional development. I have developed a network of researchers and practitioners nationally and internationally who I consult or collaborate with in my studies. I have learned about different research infrastructures and had the opportunity to observe how different schools for the deaf work here and abroad.”

“Here is one very small planet—we aren’t as different from each other around the world as some might think.” -Peter Hauser
During November 6th to 10th, the VL2 Student Leadership Team, "SLT" for short, had a three-day retreat in La Jolla, California hosted by the VL2 Interim Science Director, Dr. Carol Padden of the University of California, San Diego (UCSD). The SLT includes Dr. Shilpa Hanumantha and Concetta Pucci, from Gallaudet University, Gabrielle Jones from the University of Illinois at Urbana-Champaign, and Kelly Kim from Boston University.

The SLT reviewed and updated their annual report for VL2 and established a new leadership structure to better serve students’ needs. The new roles of the SLT are divided among the four representatives, with Shilpa as the Research Mentoring Representative, Gabrielle as the Cross-Laboratory Representative, Kelly as the Student Affairs Representative, and Concetta as the Conference Representative.

Planning for the upcoming inter-Science of Learning Centers (iSLC) meeting was a top priority. Discussion also centered on strategies to increase student involvement across the research labs involved with VL2. Finally, the SLT and Dr. Padden brainstormed how to better prepare students for professional roles and academic conferences.

While at UCSD, the SLT took advantage of the opportunity to visit several VL2 researchers’ labs. The team started with Drs. Padden and Rachel Mayberry at UCSD. The SLT participated in a lab discussion after Dr. Padden’s presentation on her recent ethnographic and linguistic research which focuses on generational differences in sign languages usage among a remote Bedouin community in Israel. Next they traveled to Dr. Karen Emmorey’s Laboratory for Language and Cognitive Neuroscience at San Diego State University. Dr. Emmorey’s staff members shared their research projects with the SLT team, and discussed possible future collaborations.

The SLT benefited from the lab tours and interactions with graduate students and would like to extend their thanks to Adam Stone, a graduate student at UCSD, for his time in hosting.
As a pre-doctoral fellow at VL2, Clifton is always busy networking and delving into his research projects. For the last two years, Clifton has been working under Dr. Paul Dudis. Now in his third year, he is starting his own research on depiction in deaf children. He is applying his experiences with Dr. Dudis to study child language acquisition. To do this, he is tapping into the expertise of Dr. Deborah Chen Picher. As part of the development of his research, Clifton traveled to the Boston University Conference on Language Development to discuss his work with other researchers. While there, he also gave a presentation at Dr. Lon Kuntze’s lab. Dr. Kuntze is an affiliated VL2 researcher.

Past research has looked at classifier constructions and reference shifting used by deaf children, but Clifton feels that this work is only a broad brush over a multi-faceted topic. In his research, Clifton draws from the typology of depiction types as developed by Dr. Dudis to predict linguistic development in children’s acquisition of ASL. By reanalyzing these observations (often analyzed as discrete phenomena—e.g. entity classifiers, handling classifiers, reference shifting) he plans to develop a theory that presents these phenomena as unified related components of the child’s course of language acquisition.

Now, as a pre-doc, Clifton enjoys the benefit of financial support from VL2 to attend conferences. These opportunities he says, “makes up for the fact that Gallaudet is a small institution. I’ve gotten the opportunity to meet plenty of high caliber researchers in my research field, and I am grateful for this networking through VL2.” The hidden benefit of being a pre-doc is that VL2 pays for his education and provides a stipend, freeing up time for Clifton to pursue numerous research projects. As a VL2 Fellow, Clifton has assumed various roles in several projects. Last year he assisted in a study using magnetoencephalography (MEG) equipment at the University of Maryland, College Park to measure the temporal magnetic signatures of the brains of native Deaf ASL users when they viewed rotated images of faces and physically impossible signs. Currently, Clifton continues his connection with University of Maryland by working with So-One Hwang, a Ph.D. student, on a study of the perceptual abilities of native Deaf signers that tests the size of the time window available when integrating language input. The next project is with another VL2 researcher, Dr. David Corina that involves measuring the electrical activity of signers’ brains while perceiving visual input. The last project Clifton is currently collaborating on is with Dr. Robin Thompson and Dr. Gabriella Vigliocco from the Deafness, Cognition, Acquisition, and Language research centre (DCAL). Clifton and the researchers from DCAL are studying the impact iconicity has on the real-time processing of signs.

A native of Wisconsin, Sarah Fish isn’t fazed by the cold weather in Massachusetts—which she now calls home. She practically lives in Dr. Lon Kuntze’s Lab at Boston University, working on her Ph.D. in linguistics. Sarah’s research looks at first and second language acquisition and bilingualism. This emphasis fits well with the Kuntze Lab’s focus on the reading acquisition of Deaf children. Sarah and her lab partners use data of videotaped classrooms, to see how deaf children balance reading and writing simultaneously.

Currently, Sarah Fish is working on her dissertation, which investigates how students and teachers in the classroom engage in talk about both English and ASL vocabulary. She uses data from children in pre-school, first grade, and third grade, at a bilingual-bicultural school for the Deaf. The findings fascinate Sarah and provide her many more questions to jot down in her “Future Research” book. She is also involved in several other projects including ASL acquisition and research on the relationship between reading and ASL.

For Sarah, the primary benefit of being a pre-doctoral fellow for VL2 is the gift of time to devote to both her dissertation and her other research projects. Sarah explains, “I have worn many hats over the course of my graduate career, and while I have enjoyed the other roles I have held, but to have this opportunity to further my research has been incredible.” Sarah expresses her gratitude to her VL2 mentor, Dr. Kuntze, who has spent a great deal of time and energy supporting her research. Sarah’s contributions to the lab at Boston University have been far reaching.

Down the road, Sarah sees herself working at a university, participating fully in both teaching and research. While doing her dissertation now, Sarah says, “I have been keeping a running list of all the ideas I’d like to pursue once my dissertation is finished, and it’s gotten quite long. But I see myself as always being involved with and intrigued by language acquisition, bilingualism, and the education of the Deaf.”
Carol Padden named as Interim Science Director

Dr. Carol Padden, Professor of Communication at the University of California, San Diego, has been named VL2’s Interim Science Director. She has been the recipient of various awards including the John Simon Guggenheim Fellowship, a UCSD Chancellor’s Associates Outstanding Faculty award and a Laureen Clerc Cultural Award for distinguished contributions to the field of deafness. Her research has been funded by grants from the National Institutes of Health, the National Science Foundation, the US Department of Education and the Spencer Foundation. Most recently she has served as the Senior Science Consultant for VL2. Dr. Padden is taking the lead in developing the science agenda for VL2’s renewal proposal that is due to NSF on May 2, 2010.

Highlighting the G-VL2 Forum

The G-VL2 Forum is a series of informal meetings for Gallaudet faculty, researchers, and students to share research ideas, discuss research designs, and develop strong research networks. While the G-VL2 Forum emphasizes topics that are related to the study of Visual Languages and Learning, the purpose of the forum is to expand the VL2 researcher network to faculty who may not be receiving direct support from the NSF grant.

This past fall, three G-VL2 Forums were held: At the first, Tom Allen discussed the VL2-EELS study. (See the article in this issue.) At the next, a team of linguists - Gaurav Mathur, Paul Dudis, Gene Mirus and Julie Hochgesang - presented their work on the progress they have made in developing an ASL corpus. The corpus would provide a web-based collection of data on ASL usage that researchers and students could access in their study of ASL. Currently, corporuses exist for British Sign Language (BSL), Australian Sign Language (Auslan), and German Sign Language (DGS). At the final Forum meeting of the semester, Sue Mather, a faculty member in Gallaudet’s Department of Linguistics, presented her work on the “Faces of ASL.” Her line of research attempts to catalog the linguistic and non-linguistic facial gestures that contribute to conveying meaning in ASL. She is particularly interested in studying the use of the face in conveying meaning in academic settings. Dr. Mather also shared her work in developing a checklist that may be used to help Gallaudet faculty improve their use of effective visual learning strategies in the classroom.

Presentation Series Videos Available for Viewing on the Web

The VL2 Presentation Series included four colloquia this fall including, Brenda Schick from the University of Colorado-Boulder, Matthew Schneps from Harvard University, Jacqueline Leybaert from the University Libre de Bruxelles in Belgium, and Carol Connor from Florida State University. Their talks were videotaped and can be viewed anytime on our website, under the VL2 Presentation Series tab.

Deaf Studies Digital Journal launches

On November 4th, over 150 people came to the Sorenson Language and Communication Center at Gallaudet University to witness the launch of a brand new website sponsored by the ASL & Deaf Studies department called Deaf Studies Digital Journal (DSDJ) (http://dsdj.gallaudet.edu). DSDJ is the first ever peer-reviewed ASL platform designed to provide scholarly articles across a wide-range of topics from interviews to visual arts. Melissa Malzkuhn is the Managing Editor of this journal as well as the Community Engagement Coordinator for VL2.

Student orientation held on Gallaudet campus in August

VL2 hosted its first student orientation this past August. Students attended from VL2 partner institutions in Albuquerque, N.M., Rochester, N.Y., Boston, MA, and Urbana-Champaign in Illinois. Approximately 20 students located at the Gallaudet campus joined these students and all came together for a weekend orientation. Sessions were led by the members of the SLT, who did an exceptional job of introducing new students to the infrastructure of the center and its research objectives. Dr. Barbara Schirmer, a member of the VL2 Board of Directors and discussed how to become a published author. Drs. Matt Bakke, Judy Harkins, and Tom Allen provided a panel to discuss funding opportunities and strategies needed to be competitive when applying for grants. Dr. Diane Clark facilitated the event.

New faces: Megan Erasmus

Megan Erasmus worked this past fall as an undergraduate intern for VL2 on projects with Diane Clark and supported with internal Gallaudet funding. She helped prepare English translations of ASL videos in which participants recounted their earliest memories. This project may help researchers understand how early memories and early language experiences are inter-related. She completed all degree requirements for her BA in Psychology from Gallaudet University this December. Now, Ms. Erasmus will join the VL2-EELS assessment team as an assessment assistant. She will accompany the assessment team to schools providing assistance where needed.

Former VL2 Pre-Doctoral Fellow hired at University of Manitoba

Dr. Erin Wilkinson, a former VL2 pre-doc, who was with VL2 from its beginning in 2006, accepted a tenure-track faculty position at the University of Manitoba, Winnipeg, Canada. Wilkinson now teaches linguistics and is planning a workshop on language documentation in conjunction with Dr. Paul Dudis for a group of educational leaders of the deaf from Morocco. The Center for International Services at Gallaudet is helping to facilitate this event. We congratulate Erin, wish her the best, and look forward to continued collaborations with her.

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Shanon Price, Secretary

Twitter username: NSFVL2
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