

**Parental Influence on Language and Social-Emotional Development in Young Children with and without Hearing Loss**

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**Student:** Emily Baer, 2014, General Science – Early Childhood Education Major  
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**Start Date:** May 14th, 2012 for 10-weeks

**Description of the project**

This summer SOAR research project relates to ecological (family and child) factors that influence child development, particularly for young children with hearing loss. With the advent of the Newborn Hearing Screening, we are now able to identify children with hearing loss at birth. This new generation of children has the potential to receive early intervention at much younger ages, with the ultimate goal to achieve age-appropriate skills. These skills may impact their inclusion into preschool and kindergarten programs for typically-developing hearing children. The results of this investigation could have drastic implications for how Moravian College's Early Childhood Teacher Candidates work with families and their young children.

**Data set.** This is a large multi-site (House Research Institute, Los Angeles, CA; San Diego State University, and Indiana University) longitudinal data set investigating parent and child factors that impact child language and social-emotional skills. A culturally-diverse sample of thirty parents and their young children with hearing loss and sixty parents of children without hearing loss (N = 90) were assessed on a variety of parental (e.g., parental stress, self-efficacy, demographic) and child (e.g., language, social-emotional, cognition) measures. Parents and children were also videotaped during a five-minute storybook interaction. The videotapes will be transcribed and parents' and children's joint book reading behaviors will be coded with an adaptation of the *Adult-Child Interactive Reading Inventory* (DesJardin, 2011). This data set is rich for analyses which examine parental influences on early skills for young children with and without hearing loss. I am a consultant on this collaborative project funded by the National Institutes of Health – National Institute on Deafness and other Communication Disorders. I have full access to this data set. This is the third year of a five-year longitudinal study.

**Faculty and Student Collaborative Roles**

The SOAR student, Emily Baer, and I will work collaboratively on all aspects of the proposed projects. Having Emily in *five* early childhood education classes over the past two years, I feel that she is well-prepared to work on library research, project development, data analysis, and manuscript/conference preparation over the summer months. Emily demonstrates excitement for the project, initiative to seek out resources and literature, willingness to learn new coding schemes and transcription processes, and eagerness to learn the process of publication and presentation at a national conference this fall in the field of Early Childhood Development.

Emily and I will meet 3 times weekly to (1) review weekly project goals and objectives, (2) oversee project and mentor as needed, (3) train Emily on new coding scheme and statistical analyses, and (4) establish new weekly goals and specific objectives (see Table 1 for specific student-faculty tasks). As show in Table 1, Emily will be in engaged in the process of cutting-edge early childhood research; from literature review, transcription and coding analyses, data cleaning, statistical analyses, research hypotheses and questions – to final paper and presentation. Together, we will work on a manuscript from this summer project. This manuscript, *Parental aspects of children's language and social-emotional skills at 12-months and one-*

year later, will be submitted into a high impact peer-reviewed journal in the field of Early Child Development (e.g., *Child Development*, *Journal of Early Intervention*). We will need to do a complete literature review, formulate research questions, conduct the analysis plan, and create full Results and Discussion sections. I would hope to have at least a full draft of this manuscript by August 10<sup>th</sup>, 2012. We will also prepare a presentation for the *Division of Early Childhood Intervention* (DEC) Conference in MN on October 17-19<sup>th</sup>, 2012. The proposal for this conference was submitted on January 15, 2012. It is wonderful that Emily is beginning her junior year this fall and we will have an opportunity to continue our work beyond the summer months and potentially go beyond one publishable paper.

### **Summary of Benefits to the Student**

The benefits of Emily's participation in these projects are numerous. Emily is a very motivated, responsible, capable student. She entered Moravian as a Trustee Scholar. I have had the pleasure to have Emily in five education courses. She is a student with enthusiasm, determination, a hard work ethic, and a student who enjoys collaborative projects. Emily is considered a gifted student, yet also struggles with a learning disability herself. She has such wonderful potential to *soar* at Moravian College with this bonus of a one-to-one learning experience through the SOAR program. This opportunity provides Emily very clear, specific, scholarly activities which align directly with the field of early childhood education. The dataset from this longitudinal study has many family and child factors to explore which directly relate to early childhood programs, methods, and specific teaching strategies when working with young children (12-months – 4-years of age) and their families. Emily will have the opportunity to learn theory and background knowledge of the field, current ways to capture parent-child data via videotape analyses, current child measures used in the field, and how to use the data for research-to-practice dissemination. Emily is also very interested in pursuing a degree at the Masters level in the area of Special Education, and particularly, has voiced a strong interest in young children who have communication challenges. This *would* provide her with experience working on a large-scale dataset that many graduate level students utilize for higher level graduate projects. Yet, I have all the confidence that she is very capable of accomplishing these summer tasks.

Through the SOAR summer research program, Emily will work on writing her own original research questions/hypotheses and conduct all research procedures to a final manuscript draft. She will also share her findings with the Moravian community on Scholar's Day next spring, 2013, share results in a presentation form to an early childhood center in the Bethlehem area, and present with me at a national conference – the Division of Early Childhood – in MN (October, 2012). It is crucial that students not only participate and collaborate with a faculty member on research to gather their own knowledge of the field, but to also learn ways to disseminate this valuable information to a larger audience that work directly with young children and their families. Emily and I will, together, present her research to the teachers of young children and their families at Lehigh Valley Early Childhood Center, a local Head Start, and/or an early childhood center for at-risk young children through contacts I have made in the Bethlehem area.

### **Budget**

Emily will work 40 hours per week for 10 weeks; \$300 per week x 10 weeks = **\$3,000**. Although she has agreed and would like to begin the project earlier than the official summer start date of May 29<sup>th</sup>, she is only requesting on-campus housing for the 10-week period from the official summer start date.

I would also like to request \$500 to put toward a laptop computer for student use for research. This is for transcription and coding procedures for parent-child interaction analyses that require a computer and a headset. Videotape transcription, where a researcher is sitting for a period of about 3-hours per 10-minute videotape, requires a computer that is mobile (to work in the library or other comfortable seating). I will need to look into costs, but this would be ideal.

**TOTAL REQUESTED for Emily Baer – Summer, 2012 SOAR Student: \$3,500**

**Related Pertinent Information**

Although this is my first SOAR proposal, I worked closely with a Moravian student, Ms. Emily Doll, last summer on a research project. She presented the findings of her work with me at an Early Childhood national conference in Washington, DC this past fall and is presently working on a manuscript with me. Because of her wonderful work ethic and enthusiasm for the project, I recommended Emily to the principal investigators of the project to continue to work on the grant with me this spring. She is now being funded through the NIH multi-site grant to continue her work with me. She has graduated from Moravian College as of Dec. 2011, yet she will present her research at the student Scholar Days in April (2012). I have also had other experiences from other colleges working with students on various research projects. This would be a wonderful opportunity for me as a new faculty member to continue collaborating with students and hopefully, instilling the love of continued learning through this one-to-one faculty-student relationship.

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Table 1. Proposed Timetable and Project Milestones (start date: May 14<sup>th</sup>, 2012):

Dates	Student Project(s) and Purpose	Faculty Role Descriptions
May, 2012	<u>Literature Review</u> – In order for Emily to establish a strong foundation for the subsequent project, it will be valuable for her to read current literature in the field of audiology, speech-language pathology, and parental contributions in early childhood development to obtain background <u>theory</u> and <u>knowledge</u> , and <u>current perspectives</u> regarding parental involvement, parent-child interactions, and language development for young children and their families.	Familiarize Emily with the literature to support the NIH-DCDD multi-site grant in order for her to write a complete and thorough literature review; familiarize her with all specific parental and child measures within the study – many of which she will also read about in the literature review; demonstrate videotape transcription / coding analyses in order for her to apply it to her readings, and share any background knowledge in order for her to write a brief, yet thorough literature review.
June, 2012	<u>Transcription and Coding Training</u> Emily will be trained with two established transcription and coding systems for videotape analyses – these are current procedures used in the field of early childhood education.	Familiarize Emily with the specific transcription analyses (CLAN program and CHAT format from Carnegie Melon); train her on transcription analyses in viewing parent-child storybook interaction videotapes; train her on the specific adapted ACIRI coding scheme for parent-child reading behaviors (DesJardin, 2011).
July, 2012	Development of <u>Hypotheses/Research Questions and Analyses</u> Plan Emily will develop her own original research questions and learn how to use SPSS-19 statistical analyses (correlational, t-tests, and stepwise regression).	The NIH dataset is a manageable data set that Emily could easily grasp and do analyses on. For her individual project, there are a number of interesting questions that she could investigate using this data, such as “ <i>What are the relationships between parental responsiveness during joint book reading and child social-emotional abilities at 24-months of age?</i> ” and “ <i>How do parents of children with and without hearing loss differ in terms of self-efficacy and linguistic input during parent-child interactions?</i> ”.
August, 2012	Begin collaborative manuscript and presentation for DEC conference presentation – (either oral or student poster presentation); Faculty and student submits a 1-2 page report to the SOAR director assessing the project.	Train Emily on data cleaning techniques and be able to use the analytical tools to apply the appropriate analyses to answer questions of interest; Results interpretation—Emily will become well versed in interpreting data analyses and writing up results according to APA style. This will be linked to a Discussion section of a paper that will explore

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		why the results obtained were what they were (or what they were not).
April, 2013	Student participates in the Moravian College Scholar's Day	

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Student: Emily Baer, General Science Early Childhood Education Major, Class of 2014

Faculty: Jean L. DesJardin, PhD

On campus housing is requested for 10-weeks of the summer project.

### Rationale

My rationale to participate in this project would be to expand and broaden my knowledge of early childhood education outside the range and scope of my education classes that I am currently taking at Moravian College. I hope to someday become an early childhood educator, and I want to feel as prepared as possible. By doing the SOAR summer research project in conjunction with Dr. Desjardin, I feel that I will learn and practice more in-depth concepts and actions in the field of early childhood education such as the current parent and child measures, videotape analyses of real-life parent-child interactions, interpretation of data, and research-to-practice strategies.

By participating in this SOAR project I would be able to learn more about children with hearing loss in relationship to typically developing children and their families. I plan to further my studies at Moravian College by obtaining a Master's degree in Special Education and I believe that doing research like this will provide me with valuable background knowledge and real research practice that is unavailable to me in a standard classroom setting. This project will also give me a chance to experience new aspects of early childhood education that I would not, on a regular basis, be able to experience such as analyses of storybook parent-child interactions, and linking research-to-practice dissemination through publication and/or presentations. I feel that this opportunity will give me an invaluable chance to explore the real applications of what I have been learning in the classroom for the past three and a half semesters here at Moravian College. This SOAR project is an excellent way for me to test my current knowledge of Early Childhood Education, explore new aspects that would not normally be available, and better understand the concept and skills that are used throughout my future field of early childhood education.

### Expected Outcomes

My expected outcomes for this project are numerous and valuable to my future goals. Through participation and collaboration in this project with Dr. DesJardin, I would better comprehend the current and past research in the field of early childhood education in terms of language development and social-emotional skills of young children, transcription and coding process with parent-child interactions, and data

gathering and analyses for further use for the purpose of Early Childhood Education. As an early childhood teacher, I will need to collect data within my own classroom and work with many families of culturally-diverse backgrounds. It is very important to me to gain an understanding of how data collection can improve teaching methods and strategies and develop new programs for young children. Learning more about the area of hearing loss relates to my passion to continue my studies at the Masters level in the area of Special Education. Gaining knowledge and understanding of children with hearing loss and their families and the relationships to what I know in child development thus far, is also an expected outcome of this project. In addition to the two previous outcomes, I believe this project will create a better understanding of the theories of child development and early childhood education that I have previously been taught at Moravian College. I am also very excited to participate in a school-wide and hopefully, nation-wide presentation by preparing and presenting my research to others at Moravian as well as families and of young children within the greater Bethlehem area. All of these expected goals will continue my ultimate goal of gaining both depth and breadth of knowledge in the field of Early Childhood Education at Moravian College.