THE DEVELOPMENTAL SCIENCE LABORATORY

https://psychology.louisiana.edu/research/research-labs/developmental-science-laboratory-dsl

Rooms 236 (Observation Room) and 238 (Operation Room)
The Cecil J. Picard Center for Child Development and Lifelong Learning
200 E Devalcourt St, Lafayette, LA 70506

About Us
The Developmental Science Laboratory (DSL) consists of a team of interested faculty and students from the Psychology Department at the University of Louisiana at Lafayette, who share similar passion for examining developmental processes across the life span. Researchers in this lab take an interdisciplinary approach in order to examine the complexity of adjusted and maladjusted developmental processes appropriately.

Supervising Faculty
Hung-Chu Lin, Ph.D.
Professor of Psychology
SLEMCO/LEQSF Regents Endowed Professor in Liberal Arts
POI Sponsored Collaborator, Pediatric Newborn Medicine, Brigham and Women's Hospital, Harvard Medical School

Collaborators
- The Developmental Risk and Cultural Resilience Laboratory, Newborn Medicine, Brigham and Women's Hospital, Harvard Medical School
- The Cecil J. Picard Center for Child Development and Lifelong Learning
- College of Behavioral, Social, and Health Sciences, Clemson University
- Cognitive Science of Language & Education Lab, Department of Psychological Science, the University of Texas Rio Grande Valley
- The UL Lafayette ACEs (Adverse Childhood Experiences) Task Force
- The College of Nursing and Allied Health Professions, UL Lafayette
- The School of Computing and Informatics, UL Lafayette
- The Sociology Department, UL Lafayette
- Better Options Initiative, Inc.
Current Research Projects

1. The long-term physical and mental sequelae of adverse childhood experiences
2. The relation between adverse childhood experiences and sexual self-esteem
3. The relation between development of empathy and understanding of theory of mind
4. Preschoolers’ responses to social partners’ distress: The effects of familiarity with social partners
5. The temporal relations between acoustic features of infant cry sounds, cry perception, and emotional responding
6. Empathy and judgment towards bystander intervention in an emergency situation
7. Social stigma towards developmental disabilities

Lab Equipment and Setup

The DSL is equipped with a system that allows student researchers to observe and record human behavior and then to analyze those behaviors at various levels, from macroscopic overviews to micro-behavioral analysis on a frame-by-frame basis.

The Instructional and Scientific Equipment Grants (awarded to Dr. Hung-Chu Lin in 2007 and 2008) have assisted in the successful establishment of a laboratory that allows behavioral analysis at the microanalytic level. Structured or semi-structured experimental procedures are conducted in the Observation Room, equipped with video cameras and a highly sensitive audio recorder mounted on the walls inputting audio and video information into the central working station in the Operation Room. The state-of-the-art coding software Observer XT with Video Module permits recording and coding of behaviors at a frame-by-frame basis. In addition, the SPSS statistical software along with the JMP program provide a powerful set of univariate and multivariate analytical tools to perform both basic and advanced statistical analysis.

The DSL provides the opportunity to experience this level of sophisticated research (for example, being able analyze the dynamics of group interaction or integrating physiological indices with behavior in real time). The system is currently being used for coding many different research projects and can be accessed by student on a daily basis. The nature and methodology of this technology brings enriching learning experiences to students that far surpass those that students gain from other types of research (e.g., questionnaires). We have found that this technology and research paradigm fosters and motivates students’ learning and growth in ways which cannot always be achieved in a traditional classroom setting. In addition, the software and facility allows for the recording and evaluation of psychotherapy sessions, as a component of training psychotherapists, which will benefit any member of the student body needing supportive psychotherapy.

Students who have used the facility at the DSL often comment that they did not understand how exciting psychological research could be until they had the chance to see and work with this technology at the DSL. Working with this technology and
learning the associated skills enables our students to become more competitive candidates for graduate school. In the past, research using the system has been presented at prestigious national and international conferences (Canada, 2013; Germany, 2014; Spain, 2015), including work that was presented by students. This exposure to research activities of psychologists from different parts of the world inspires our students to venture out for innovative thinking and study.

Equipment Description

Media Recorder
The Media Recorder from Noldus Information Technology Inc. enables synchronous video recordings from up to four different video and audio sources. Compatible with The Observer® XT, FaceReader™, and a broad range of cameras, it is the ideal recording tool. Media Recorder enables us to combine different videos in one study. It is at the core of the lab and offers precision and flexibility in video recording and synchronization. Media Recorder can also be used as a stand-alone tool to make recordings and analyze those later, particularly if we are importing recordings from off-site projects. This increases the flexibility of the system, and increases the number of students who can utilize the program in projects and research.

H264 Video Digitizer Board for Media Recorder
This hardware component in the CPU allows the data from the four video cameras to be translated from analog to digital data for use in the Observer XT software program. It includes Euresys H264 Video Capture Card that receives the analog data from the cameras and microphones. Without this component, the video data from the cameras and the audio data from the microphones cannot be accessed with a computer. This component enables also split screen viewing of both cameras at the same time, enabling better understanding of micro-behaviors. This is the component that enables faculty to pull video clips of behavior to include in power point presentations for their classes.

The Observer XT 14.0 : Media Module
The Observer® XT is the professional and user-friendly event logging software for the collection, analysis, and presentation of observational data. The Observer XT supports the entire workflow of a research project: from setting up the experiment, design of a coding scheme, and data gathering, to data analysis and presentation. This is the program that students use to create coding schemes, to code the video and audio data, to do elementary data processing, and to create portions of presentations for conferences. This program is so user friendly that a novice can be trained to use it productively in just a few hours, and so powerful that it is considered the gold standard for observational research in the field of psychology. There is no other program that is comparable.

Dell Precision Desktop Computer
This CPU is specifically formatted for the Observer XT and comes with an advanced graphics card (Nvidia Quadro K620 2GB) and the advanced video card (H.264
Professional Mpeg Encoder Board/Framegrabber) to enable the functions of the Observer XT 12.5. It comes with the software pre-installed and tested prior to delivery.
Experiments conducted in the Observation Room examining preschoolers’ social emotional and cognitive development.

Left: Parent-child dyad during normal interaction session. Right: Student researcher testing a child’s perspective taking.

Left: Student researcher conducting false belief test examining preschoolers’ understanding of theory of mind.

Below: Student researchers observing experiment in session from the operation room.
Lab Activities

Students (both graduate and undergraduate) involve in developing research initiatives, designing experiment, recruiting participants, scheduling experiments, conducting research procedures, organizing data, data analysis, and manuscript preparation. As a committee member serving on the Institutional Review Board (IRB) at the UL Lafayette, Dr. Hung-Chu Lin ensures that students working in the lab take appropriate considerations for the rights and benefits of both child and adult participants. Each of them is required to understand and be familiar with the procedures involved to obtain the IRB approval for a research project. Further, each of them is required to go through the self-paced online Protection of Human Research Subjects training offered by the National Institutes of Health.

The DSL does not recruit students based on their GPA’s or academic performance. Faculty embraces students who demonstrate interest in research and show strong motivation and commitment to the learning process. I have witnessed several students who came in with low GPA’s, yet after exposing themselves to lab experiences at the DSL for some time, transformed into students with exceptional task efficiency and motivation to learn. Reassuringly, their academic performance, in turn, showed a tremendous improvement.

Lab members meet regularly on Friday afternoons. We usually begin with reflection and discussion on various aspects of projects currently undertaken at the lab. We brainstorm methods to solve problems we face in certain projects and refine experimental procedures.
to ensure rigorous control for variables under study. A session of literature review would often follow, critically critiquing the information as relevant to our current projects. We include different psychological perspectives to advance and widen our knowledge base to examine complex developmental processes. Further, we relate the discussion to our daily life experiences and to our future directions in career development and personal growth. The meetings are usually followed by experimental sessions. Students get the first-hand experiences to interact with participants and conduct experiment, closely following the carefully designed protocols. Some of the students have been chosen to conduct laborious and strenuous behavioral coding based on their schedules and career goals. These students spend averagely 10 hours per week working on the coding and data analysis in the lab. It is evident (as shown in part in the attached lab pictures) that they are not only learning diligently at the lab, but also having a great deal of fun.

During the literature discussions and experimental sessions, faculty attends closely to each student’s skills in task efficiency, information processing, and communicative style and effectiveness. Base on the understanding of each student’s learning styles, faculty tailors their approach to provide guidance and support helping individual students develop their research competence and career plans.

In addition to research activities, we also take time to support each other and celebrate life events.
Students working in the DSL have excelled in several regional, national, and international conferences. At the conference, there are numerous opportunities for students to be exposed to cutting-edge research and connect with researchers from different parts of the world. This is one of best opportunities to expose student researchers to the world of research and encourage them to become innovative in their research. Attending a conference like this definitely provides a means for me to bring my teaching and modeling as a researcher to a level far beyond what I can normally accomplish within a classroom or laboratory setting.
We rocked at the Louisiana Undergraduate Research Conference, Fall 2019, at UL Lafayette, presenting four posters!

Madalynn’s friend, Madalynn Bourque, Maddison Knott, Victoria Morck, Meghan Broussard, Callie Pitre, MiKaila Kinsland, Nicholas Barker, Hung-Chu Lin, Sara Flynn, Lindsey Held, Madison Holmes, DeAndra Edwards, Hunter Harrington, DeAndra’s friend, Hunter’s friend (from left to right).
Supported by the Undergraduate Research Mini Grant awarded to Dr. Hung-Chu Lin (2018), five students presented at the 31th Convention of the Association for Psychological Science, May 24-27, 201, Washington, D.C., USA. Nicholas Barker, Steven Stringfellow, Hung-Chu Lin, Lindsey Held, Madison Holmes, Maddison Knott (from left to right).
We had so much fun presenting at the Louisiana Undergraduate Research Conference, Fall 2018, at UL Lafayette.

Bailey Latiolais, Madison Holmes, Lauren LaHaye, Ashley Hughes, Hung-Chu Lin, Maddison Knott, Lindsey Held, Krista Malley, Sarah Flynn, Steven Stringfellow, and Nicholas Barker (from left to right).

Supported by the Undergraduate Research Mini Grant awarded to Dr. Hung-Chu Lin (2018), five students presented at the 30th Convention of the Association for Psychological Science, May 24-27, 2018, San Francisco, CA, USA.

Steven Stringfellow, Ashley Hughes, Lauren LaHaye, Hung-Chu Lin, Julie Arceneaux, and MiKaila Kinsland (from left to right).
Maddison Knox, Holly Monk, Ashley Hughes, Julia Arceneaux, Steven Stringfellow, Hung-Chu Lin, and Nicholas Barker (from left to right) presenting at the Louisiana Undergraduate Research Conference, 2017, at UL Lafayette.

CammieJo Touchet, Demi Leleux, Jacob Ambrose, Ashley Hughes, Sophie Comeaux, Steven Stringfellow (from left to right) presenting at the Louisiana Undergraduate Research Conference, 2016.
Ashley Hughes, Demi Leleux, Wai Ying Chan, Kyla Louviere, and Rebecca Tacke (first row from left to right) presenting at the 2016 International Congress on Infant Studies, New Orleans, LA.

Left: Kylie Garber, Rebecca Tacke, Taylor Schaff, and Michelle Grisham (from left to right) presenting at the Biennial Meeting of the Society of Research on Child Development (SRCD), Philadelphia, PA, 2015.

Student Conference Awards

- The presentation by Allison Roy, Lauren Brooks, and Danielle Barns at the Undergraduate Research Conference (2021) was selected by the Student Center for Research, Creativity, & Scholarship as one of the five undergraduate students’ research to represent the University of Louisiana at Lafayette to attend the University of Louisiana System’s Academic Summit (April 7-8, 2022). Title: The Association between Adverse Childhood Experiences and Depression.

- Aidan Guidry’s presentation at the Undergraduate Research Conference (2021) was chosen by the Student Center for Research, Creativity, & Scholarship as one of the three undergraduate students’ research to display at the Grand Celebration of UL Lafayette’s R1 Status (2/23/2022). Title: Stress, Loneliness, and Suicidality During the COVID-19 Pandemic.

- Wade Johnson’s presentation at the Undergraduate Research Conference (2020) was selected by the Student Center for Research, Creativity, & Scholarship as one of the three undergraduate students’ research to represent the University of Louisiana at Lafayette to attend the University of Louisiana System’s Academic Summit (March 26, 2021). Title: How autism awareness interacts with empathic concern to predict stigma towards autism spectrum disorder.

- Madeline Jones and Maddison Knott’s submission to the 2021 SWPA Convention (San Antonio, Texas) was elected as a Finalist for the SWPA Student Research Competition Awards. Title: Specific ACEs items relate to mental and physical symptoms and attachment insecurity.

- Ashley Hughes’s submission to the 2018 SWPA Convention (in Houston, Texas) received a Psi Chi SWPA Regional Research Award and was elected as a Finalist for the Psi Chi Regional Research Award Competition. Title: Dispositional qualities behind behaviors in response to socially rejecting moments.

- Philip Richard received the 2014 International Travel Award for Undergraduate Research (in the amount of $1,000) offered by the XIX Biennial International Congress on Infant Studies, Berlin, Germany.


- Joshua Landry won the 2nd place at the state level for the Undergraduate Research Competition at the Louisiana Psychological Association's 2012 Annual Convention.

Madeline Jones was selected as the SP 2022 recipient of the **Richard G. Neiheisel Phi Beta Kappa Outstanding Master's Graduate Award** – the oldest honor society in the country and, at each Fall and Spring commencement, our chapter presents this honor to a master's student with at least a 3.6 GPA who is graduating with classical Arts and Sciences degree (including, here at UL Lafayette, degrees in Music, History, English, French, Psychology, Biology, Geology, Mathematics, and Physics).

Madeline was also nominated for the **Outstanding Graduate Teaching Assistant Award**.

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**Wade Johnson**

Wade is the Fall 2021 Outstanding Graduate of the College of Liberal Arts and he also is the recipient of the Fall 2021 Hait-Lewis Award for Academic Excellence in the Psychology Department at UL Lafayette.
Madison Holmes

Madison received the Spring 2020 Outstanding Graduate of the Psychology Department at UL Lafayette.

Lindsey Held

Lindsey received the Fall 2019 Hait-Lewis Award for Academic Excellence in the Psychology Department at UL Lafayette.

Lindsey served the DSL as the Lab Manager for the 2019 academic year.

Maddison Knott

Maddison received the Fall 2019 Hait-Lewis Award for Academic Excellence in the Psychology Department at UL Lafayette.
Demi Leleux (left)
Demi received the Spring 2017 Outstanding Graduate for the Psychology Department at UL Lafayette

Cammie-Jo Touchet (right)
Cammie-Jo received the Spring 2017 Hait-Lewis Award for Academic Excellence in the Psychology Department at UL Lafayette

Ashley Hughes (right)
Demi received the Fall 2018 Psychology Star Award in the Psychology Department at UL Lafayette

Lauren LaHaye (left)
Lauren LaHaye received the Fall 2018 Psychology Star Award in the Psychology Department at UL Lafayette

Demi Leleux (left)
Demi received the Spring 2017 Outstanding Graduate for the Psychology Department at UL Lafayette

Cammie-Jo Touchet (right)
Cammie-Jo received the Spring 2017 Hait-Lewis Award for Academic Excellence in the Psychology Department at UL Lafayette
**Jacob Ambrose**  
(McNair Scholar)

Jacob received the Fall 2016 Hait-Lewis Award for Academic Excellence in the Psychology Department at UL Lafayette.

*Photo taken with Dr. Hung-Chu Lin at the 2016 Psi Chi Induction Night*

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**Kylie Garber** was selected as one of the 12 recipients of the prestigious American Psychological Association's Summer Science Fellowship (SSF). The competitors included more than 400 students with exceptional qualifications from across the United States. Kylie traveled to George Mason University in summer, 2015 and obtained hands-on experience conducting cutting-edge research with some nationally-renowned researchers in psychology. Kylie is the recipient of both the following:

1. Fall 2015 Outstanding Graduate for the Psychology Department at UL Lafayette
2. Fall 2015 Hait-Lewis Award for Academic Excellence in the Psychology Department at UL Lafayette
Philip Richard (McNair Scholar) was the recipient of the following awards / fellowships:

2. The Southern Regional Education Board (SREB) Doctoral Fellowship (2015)
3. The 2014 International Travel Award for Undergraduate Research (in the amount of $1,000) offered by the XIX Biennial International Conference on Infant Studies, Berlin, Germany (previously mentioned)
4. Fall 2014 Outstanding Graduate for the Psychology Department at UL Lafayette
5. Fall 2014 Hait-Lewis Award for Academic Excellence in the Psychology Department at UL Lafayette

In the Media
Aidan Guidry: Chosen by the College of Liberal Arts to be interviewed by KRVS Radio Station (10/5/2021) to highlight experiences with research as an undergraduate on behalf of the Psychology Department and the College of Liberal Arts

Jasmine Ambrose
Jasmine received the Spring 2012 Hait-Lewis Award for Academic Excellence in the Psychology Department at UL Lafayette

Photo taken with Dr. Hung-Chu Lin at the 2015 Psi Chi Induction Night
Peer-Reviewed Publications with Student Coauthors


UL Lafayette Undergraduate Conference Proceedings with Student Coauthors


**Conference Presentations with Student Coauthors (All Peer Reviewed)**

- **Li, K., Barnes, D., Hasha, M., & Lin, H.-C. (2021).** *The predictability of mindfulness on health outcomes above and beyond childhood trauma.* Poster proposal submitted to the 2022 Convention of the Southwestern Psychological Association, April 8-10, 2022, Baton Rouge, LA, USA.


Lin, H.-C., Barker, N., & Knott, M. (2020). Disengaging from distress in adult and infant strangers: Rethinking the role of personal distress in young children. Poster virtually presented at the XXII Virtual International Congress on Infant Studies, July 6-9, 2020, originally planned to be held in Glasgow, Scotland, UK.


Knott, M., Flynn, S., Broussard, M., Morck, V., & Lin, H.-C. (2020). Depressive symptoms in direct support professionals: Associations with emotion regulation and self-efficacy. Poster virtually presented at the 32nd Annual Convention of the Association of Psychological Science, May 21-24, 2020, originally planned to be held in Chicago, IL, USA.


Flynn, S., Bourque, M., Holmes, M., Barker, N., & Lin, H.-C. (2020). The Associations between self-efficacy, stress, and anxiety symptoms in direct support professionals. Poster to be presented at the 2020 Convention of the Southwestern Psychological Association, April 3-5, Frisco, TX, USA. (Conference cancelled).


childhood experiences with depressive symptoms. Poster proposal accepted to the 31st Convention of the Association for Psychological Science, May 23-26, 2019, Washington D.C., USA.


Lin, H.-C., Yang, Y., McFatter, R., & Richard, P. Criminal Offenders’ Dispositional Empathy, Perceived Parental Bonding, and Attachment Dimensions. Poster presented at the 28th APS Annual Convention, May 26-29, 2016, in Chicago, IL, USA.


Lin, H.-C., & Bourque, J. (2013) Parenting stress in parents of children with autism. Findings were also presented at the UL System Academic Summit Conference held in Monroe, LA.


**Student Researchers at the DSL**

**Current Members (SP2022)**
- Aidan Guidry
- Allison Thomas
- Jaci Philliber (Biology major)
- Mia Guidry
- Addie Lalonde
- Alexis Funderburk
- Sydney Guidry
- Joy Martin
- Shriya Gaikwad
- Cantika Nasution
Kathie Li
Prynceton Fant

Alumni of the DSL
Camille Hollier (Biology major)
Lauren Brooks
Haylie Ahia (Biology major)
Marissa Bellard
Alayna Miller
Alison Roy
Amira Jackson
Brielle Jones
Danielle Barnes
Abriana Travis
Mikaila Kinsland
Callie Pitre
Wade Johnson
Alyssa Huddleston
Amira Jackson
Gabrielle Capps
Roze Dornellas
Lindsey Held
Maddison Knott
Madison Holmes
Nicholas Barker
Hunter Harrington
DeAndra Edwards
Steven Stringfellow
Meghan Broussard
Victoria Morck
Bethany Kolb Ian Bernard
Bonnie Lahman
Kelsey Lorraine
Kaityn craft
Mateo Chavez
Olivia Derouen
Madalynn Bourque (NURS)
Gabrielle Campbell
Chioma Obioha
Dinah Doucet
Sarah Lynn
Krista Malley
Lauren Matherne
Katlain Matthews
Bailey Latiolais
Ashley Hughes
Lauren LaHaye
Madeline Jones (PhD Program in Family and Developmental Science, University of Connecticut)
Kylie L Garber (PhD Program in Developmental Psychology, the Frank Porter Graham Institute of Child Development at the UNC Chapel Hill)
Philip Richard (PhD Program in School of Psychology, Louisiana State University)
Michelle E Grisham (PhD Program in Developmental Psychology, the Northern Illinois University)
Jacob J Ambrose (McNair Scholar) (PhD Program in Clinical Psychology, Alliant International University)
Demi J Leleux (PhD Program in Art Therapy, Drexel University)
Melanie Klin (PhD Program in Comparative Psychology, University of Chicago)
Wai Y Chan (Master’s Program in Counseling Education, Louisiana State University)
Ashley R Legnon (Master’s Program in Counseling Education, UL Lafayette)
Cammie-Jo E Touchet (Master’s Program in Counseling Education, UL Lafayette)
Sophie N Comeaux (Master’s Program in Social Work, Louisiana State University)
Taylor Schaff (Master’s Program in Educational Psychology at the University of North Texas)
Josephine Janice (Curriculum Educator, Newport Children’s School, Inc.)
Stephen Landry
Jessica Manuel (M.S., Specialist at the Therapy Center of Acadiana)
Janna Bourque (M.S., graduated from UL Lafayette Psychology Master’s Program)
Elizabeth Jeffery (M.S., Instructor in Psychology at the South Louisiana Community College in New Iberia)
Ashley Schaff, M.S.
Danielle Broussard (McNair Scholar) (Southern University Law Center)
Felicia Faciane
Josh Landry
Lauren Ashley
Anna LaGrange
Jasmine Ambrose, M.S.W.
Jessica Asmar (Biology major)
Mie Turegano (M.S., Support Coordinator at Community Resource Center, Baton Rouge, LA)
Kelly Florane, M.S.W.
Rachel Heath
Hannah Carriere
Amy Guilbeau
Jennifer Venable
Leatha Anatole
Bronwyn Frederick
Jocelyn Potier
Nicholas Guillory
Amber Bux
Morgan Forman
Stinne Søndergaard, M.S.
Dylan L Harrell
Audra P Jensen
Tayler A Richard
Rebecca K Vance
Rebecca N Tacke (Master’s Program in Psychology, UL Lafayette)
Alexandra M Hubbell
John R Jumonville
Kirsten Kidder
Kyla Louviere
Crystal N Pefferkorn
Kristen Petitjean
Brittany N Phillips
Gabrielle C Schexnailder
Megan E Silvio
Caroline A Strother
Patrick Conner
Edliyah Conner
Miranda Hebert