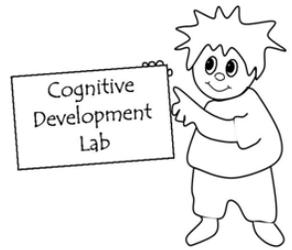


# Cognitive Development Lab

## Newsletter, Vol. 1



Clockwise from top left: Sarah, Tammy, Rachael, Dr. Elizabeth Nilsen, Tracy, Lei, Anisha, Randall, Vanessa



Volume 1



### Greetings from all of us at the lab!

Hello everyone and welcome to the first edition of the Cognitive Development Lab's newsletter! We hope that you are all enjoying a wonderful summer! For some of you it's been a while since your son or daughter participated in one of our studies at their school,

while we have seen other families more recently here at our lab at the university. We are incredibly grateful for the support we've received from the local community to conduct our research, so we wanted to take this opportunity to share what's been going on in the lab and what we're

going to be up to in the coming year! In this newsletter, you'll hear about some of our findings from recent studies and where they've been presented. You'll also discover some fun games and activities that you and your kids can play together! Keep reading to hear more!

### Interested in becoming involved again?

We are always looking for willing families to volunteer to participate in our studies, and would be thrilled to have you visit our lab again! Here is an example of a study we're currently running:

**Social Interaction Study:** For this study examining children's social development, we are looking for **children age 8-12 with and without ADHD** and their mothers to participate! This study involves a one-time, 2 hour visit to our lab. We provide free parking for parents, and children are given \$10 and a small toy as a thank you for

### Special Points of Interest:

- ☺ Hear about upcoming research studies!
- ☺ Find out where the results of the study your child took part in were presented!

### Inside this issue:

What's new in the CDL?	2
Past research study results and	2-3
About Us	4
Family Fun Zone!	4

For more information or to get involved, you can reach us by phone at **519-888-4567 ext. 38542**, or by email at [childresearch@uwaterloo.ca](mailto:childresearch@uwaterloo.ca).



## What's new in the Cognitive Development Lab?

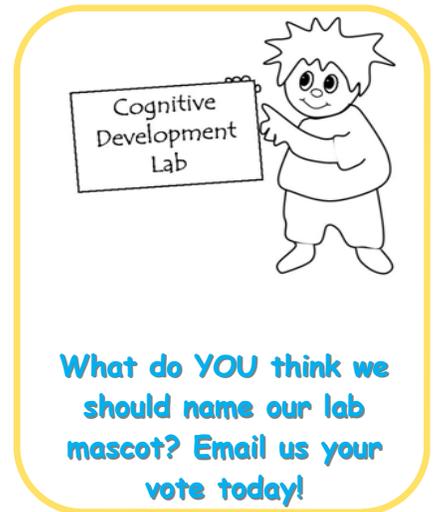
It's been another busy year here at the CDL! This year has seen the completion of several studies including our long-term studies "The Role of Motivation and Feedback in Preschoolers' Communicative Perspective-Taking", which was an in-lab study with 3- and 4-year-olds, and "Communication in Children with and without Attention Deficit / Hyperactivity Disorder", which was conducted with children age 9-11 and was also an in-lab study that has been running the past year. We would like to sincerely thank the Early Childhood Education Centre at the University of Waterloo, and all of the families in the local

community who made these studies possible! We couldn't have done it without you. **Keep reading on this page to learn more about the outcomes of some of our other studies too!**

This summer we are bidding a fond farewell to our lab coordinator, Lei, who has been with the lab since its inception in 2008, and to Rachael, a research assistant who has been with the lab since 2009. We would like to also extend a warm welcome to Phoebe, our new coordinator who will be starting in September, as well as to our new Ph.D. student, Shauna!

This fall, we will be starting

up a few new studies for preschool and elementary-age children, so look for us at community centres and elementary schools near you! We will also be starting a collaborative study with The Hospital for Sick Children (SickKids) this fall for teenagers age 14 to 19 with and without ADHD. If you're interested in participating or finding out more, we would love to hear from you!



### **The Effect of Shyness on Verbal Irony Comprehension**

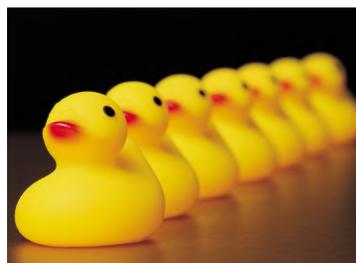
This study was conducted in 2009 by Tracy (Ph.D. candidate) at local elementary schools with children age 8- to 11-years-old. We were interested in how certain characteristics, such as shyness and language skills, affect the way children understand verbal irony (often referred to as sarcasm).

Children listened to stories and then rated whether they thought the person talking was sarcastic or serious, and mean or nice. The results of this study showed that shy children rated sarcastic comments as being meaner than children who were not shy. The results of this study were

presented at the International Society for the Study of Behavioural Development conference and will also be

### **Children's Sensitivity to Speaker Clarity When Learning New Information**

This study, was conducted with children age 4-7 years in 2011. by Randall (Ph.D. candidate). We examined children's preferences for learning new information from different people. In the study, children



"The sticker is under the duck."

listened to clues from speakers who differed in how clear their messages were (for example, one person might say that the sticker is under the duck, while another may say it's under the front duck), in order to find hidden

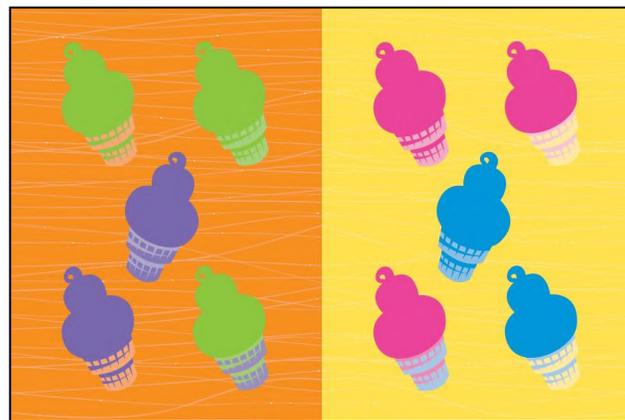
stickers. The results of this study showed that children chose to learn from speakers who were clear (that is, they gave unambiguous clues) and who had provided correct information in the past. These results were presented in 2011 at the Society for Research in Child Development Biennial Meeting, in Montreal, Quebec., and will soon be published in the journal

## Executive Functions and Children's Social Behaviour

This study, examining children's cooperative behaviour, was conducted by Vanessa (Ph.D. candidate) and Rachael in 2009-2010 at local elementary schools with children age 5-8 years. Children were paired with a partner and asked to complete a puzzle first by working together; then, a week later, the same pair was asked to complete a similar puzzle, but this time the children were asked to finish their own half as quickly as possible to beat the other person. The children also individually played some games looking at their

executive functioning abilities (which include skills such as planning, working memory, problem solving, attention, mental flexibility, and inhibition). Children who scored better on the games assessing executive functions adapted their behaviour in the puzzle games to suit the social context—e.g., they were more likely to inhibit competitive behaviours when asked to cooperate. Vanessa presented the results at the 2011

Society for Research in Child Development Biennial Meeting in Montreal, Quebec, and published findings in the *Journal of Applied*



A puzzle used in our study.

## Perspective-Taking in Communication: Mechanisms for Adjustment and Correction

This study was conducted in 2009 here at the University of Waterloo by Tracy (Ph.D. candidate) with undergraduate participants who did and did not experience symptoms of ADHD. We were interested in examining the relationship between one's ability to stop automatic responses and one's ability to take the perspective of a conversational partner. Participants in this study were asked to wear an eye-tracking

device while completing a task wherein they followed simple directions given by another person to move specific objects to certain places (e.g., move the medium-size battery to the top left box). Since the development of perspective-taking abilities is a theme that runs through many of our studies with children, we wanted to conduct a study to examine adults' skill at

completing similar tasks as well. The results of this study showed that adults who rated themselves as experiencing more symptoms of ADHD looked more often at objects blocked from the other person's view, suggesting they had more difficulty taking the other person's perspective. The findings from this study were published this year in the *Journal of Attention Disorders*.

## Communication and Inhibitory Control in Children With and Without ADHD



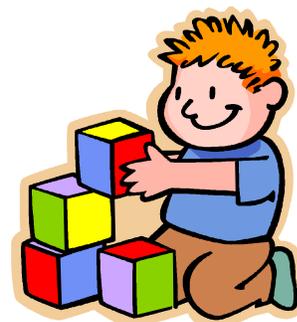
Learning to communicate successfully with others is an important part of childhood!

This study was conducted at our lab by our researchers Lei and Kristi between fall 2008 and spring 2011 with children age 6- to 9-years old, with and without Attention Deficit Hyperactivity Disorder (ADHD). By conducting this study, we aimed to develop a better understanding of how communication develops in young children, and how the development of those skills are impacted by ADHD. We were

specifically interested in knowing more about how children understand what other say to them. The results of this study showed that children with ADHD had more trouble honing in on exactly what another person is referring to, and that this difficulty is related to more frequently-occurring ADHD symptoms. These results have been accepted to the *Journal of Speech, Language, and Hearing Research* for

# The Cognitive Development Lab

Psychology Department  
University of Waterloo  
200 University Avenue West  
Waterloo, Ontario, N2L 3G1



Phone: 519-888-4567 ext. 38542  
E-mail: [childresearch@uwaterloo.ca](mailto:childresearch@uwaterloo.ca)

We are a group of researchers in the Psychology department at the University of Waterloo who are interested in finding out more about how children's thinking and communication skills develop. We conduct studies with preschool and school-age children in order to better understand how children learn to communicate and interact effectively with those around them. Our lab is a family-friendly environment where parents and children alike can feel comfortable, and all our studies are designed like games so children have fun participating! We hope to see you and your family again soon!



<http://www.cognitivedevelopmentlab.uwaterloo.ca>

## Family Fun Zone!

### A Visit to the Lab

H	P	Q	M	H	T	J	Y	C	W	N	O	F	M	E
G	Q	A	X	O	E	A	L	A	D	H	L	O	U	Z
T	G	E	J	S	T	N	L	A	U	G	H	F	J	C
N	B	T	M	T	V	I	W	K	V	Y	W	U	O	O
G	E	B	P	U	O	Y	V	G	R	E	N	N	H	M
X	A	N	T	D	H	P	X	A	H	A	G	I	M	M
Y	K	M	S	Y	P	I	X	J	T	I	U	K	D	U
U	N	D	E	R	S	T	A	N	D	E	C	N	S	N
E	J	U	E	S	P	Q	K	W	S	S	I	R	T	I
X	D	W	V	V	K	J	X	D	D	R	Z	D	O	C
P	Z	L	E	A	R	N	R	N	U	P	Q	W	Y	A
L	L	O	Y	D	D	O	U	O	X	Q	L	F	S	T
O	J	A	M	M	W	O	L	T	O	V	U	G	Q	E
R	D	Q	Y	I	S	O	B	H	Z	L	E	Y	Y	H
E	G	N	J	P	C	O	M	P	U	T	E	R	S	U

PLAY	EXPLORE	WORDS	COMPUTERS	SOUNDS
GAMES	MOTIVATE	UNDERSTAND	STUDY	LEARN
LAUGH	COLOUR	TOYS	COMMUNICATE	FUN
TALK				

Can you help our mascot find his way out of the Psychology building?

