



# Cognitive Development Lab NEWSLETTER

SPRING/SUMMER  
2026

## Greetings from the Cognitive Development Lab!

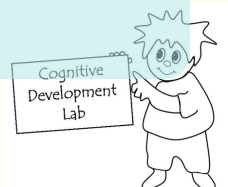
We hope your family is enjoying the spring weather. On campus, we have been appreciating outdoor spaces increasingly getting greener... while also carefully navigating around geese nesting areas!

**Thank you to you and your families for your involvement in our work!** We would like to share with you results from studies we have conducted since the last newsletter. We are attending a few conferences this summer: *Society for Research in Adolescence, Development, and Canadian Psychological Association* where we present findings from the studies you have contributed to. Topics over the past year have varied from how parenting attitudes and practices relate to child persistence, how adolescents' ability to consider other's emotions and thoughts relate to communication skills and social outcomes, as well as how adolescents communicate with each other during video games – and reflect on other's thoughts in both in person and online environments.

**As has been the case since the lab started, we investigate how children and youth navigate their social worlds and the cognitive skills that enable them to do so.** Please read further to find out what your/your child's participation helped us learn and the implications of such findings.

## Connect with us!

**We will be attending festivals and community events within the Waterloo Region this summer. Please feel free to pop by our table/booth and say hello!** We also have an Instagram account ([@uwcogdevlab](https://www.instagram.com/uwcogdevlab)) that you are welcome to follow if you would like to receive information we post on recent findings, suggested books on topics we study, as well as our answers to questions posed from families in our "Ask a Researcher" series.



## Interested in participating?

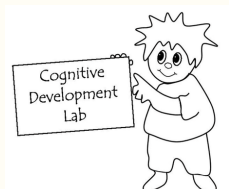
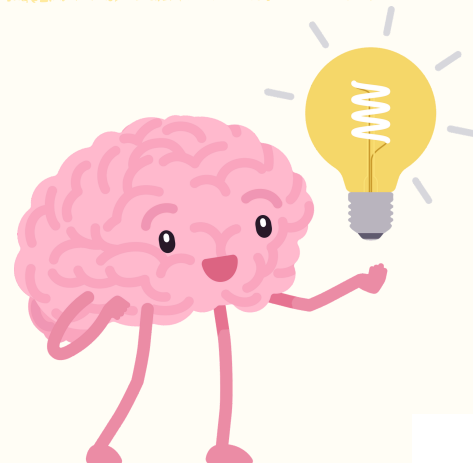
**We welcome new families to our participant database – signing up means that you will be contacted when studies come up that you/your child is eligible to participate in.** Studies take place either in our lab at the University of Waterloo or online. Please feel free to pass along this newsletter or our contact information to friends, family, or neighbours. Interested parents/caregivers who haven't already signed up can contact our lab by emailing us at [childresearch@uwaterloo.ca](mailto:childresearch@uwaterloo.ca) or directly join our participant database through the online form.

**Scan the QR Code or visit our website to join our participant database!**



## Findings from our recent studies

Published work can be found on our website. Please reach out if you would like a copy of any of the articles – below is a summary of findings from recent studies:



# 1 How do teens and tweens build strong friendships — and why is it easier for some than others?

Friendships play a powerful role in development, especially during **adolescence**. Youth who have strong, positive friendships tend to experience better mental health, greater wellbeing, and stronger engagement at school. **But the skills that support social success aren't the same for every child**—and in some cases, traits that help one youth may actually make things harder for another.

Our study is exploring how three key factors—**shyness, executive functioning** (skills like keeping information in mind and holding back a response), and **perspective-taking**—work together to shape how youth communicate and experience their peer relationships. We look at things like knowing what to say in the moment, as well as both positive and negative friendship experiences. By following youth over time, we can better understand not just what matters for social development, but who these factors matter for most.

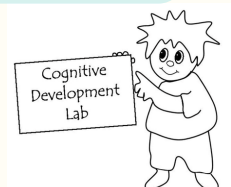
Thanks to the incredible support of our lab families and school partners, **we've already enrolled over 175 youth** and are now well into our second round of data collection.

## What we're seeing so far:

- **Perspective-taking** and **executive functioning** each play important, distinct roles in social success
- Strong **executive functioning** may help support communication when **perspective-taking** is weaker
- For shy youth, **perspective-taking** may be especially important to social development—and may even be protective
- Patterns may look different for youth depending on gender (stay tuned for more information as our research investigation continues!)

**We're excited to continue sharing what we learn as the study progresses.**

This work was presented at several conferences, including: the *Society for Research in Cognitive Development*, the *Canadian Psychological Association Annual Conference*, *Let's Talk About Youth*, and the *Society for Research on Adolescence*. A number of research publications related to this work are also under development.



## 2 How do adolescents consider the thoughts of others during online versus in person interactions?

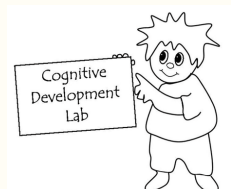
**Adolescence** is a time when social relationships become especially important, and much of teens' daily lives can revolve around figuring out what others are thinking. Social situations are often not entirely clear, which means teens may have to **“read between the lines”** to make sense of what is going on. Some teens may be especially sensitive to these ambiguous moments.

At the same time, the way teens interact has changed dramatically. Many conversations now happen through texts, social media, and online platforms, rather than face-to-face. **In our work, we ask whether this context changes how teens interpret social situations?**

Teens were asked to imagine themselves in a variety of scenarios and interpret what others might be thinking about them, as well as what they might be thinking about others. We found that **adolescents were more likely to assume others were thinking something negative about them within in-person interactions than during online interactions.** In these offline situations, they were also less likely to consider neutral explanations for others' behaviour, suggesting a tendency to read more into these moments.

**Interestingly, this pattern also depended on perspective.** Teens were more likely to expect negative judgments when thinking about what others might think of them, but were more generous when considering their own thoughts about others in similar social situations, often giving others the benefit of the doubt. We are further exploring how individual characteristics, such as temperament and online experience may relate to the sorts of interpretations youth hold.

This work will be presented this summer at both the *Canadian Psychological Association Conference* and the *2026 Development Conference* - held in Montreal.



## 3

## How do parents' goals shape their behaviour in different contexts – and does this relate to children's subsequent behaviour?

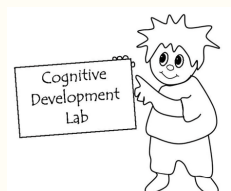
There is a lot of conflicting parenting advice available, making it difficult for parents and caregivers to know what is best. We recently completed a study in collaboration with the Social Development Lab and Developmental Learning Lab that looked at whether certain **parent characteristics** related to their **behaviour towards their child during a joint task** – and how such behaviour related to **how children approached challenging tasks**.

We had parents and their children (4-5 years old) complete challenging puzzles together, with parents randomly assigned to one of two groups. One group was encouraged to focus on their child's learning and to enjoy the process (**process-oriented**), while the other group was told that their child needed to complete all the puzzles within the time limit (**outcome-oriented**).

Results showed that parents used more **controlling behaviours** (e.g., directives, pressure, negative comments) in the **outcome-oriented condition**, suggesting that **situational pressure** increases controlling parenting. Interestingly, parents who reported holding more **performance-approach goals** (i.e., wanting their child to outperform others) engaged in more controlling behaviours with their child during the puzzle task. Parent behaviour was related to children's behaviour: **children were less persistent when their parents engaged in more controlling behaviours in the previous task**.

Together, this work demonstrates that **high pressure contexts** may negatively affect parenting behaviour, and that letting children explore and engage on their own may result in them showing greater engagement and more problem-solving in their own tasks.

This work will be presented at the 2026 *Development* conference.



## 4

## Which adolescent characteristics relate to more successful communication?

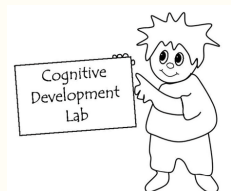
**Communication** is the method by which individuals form and maintain social connections. Within the last few years, our lab has looked at how children's **temperamental characteristics** may play a role in how they communicate with others.

One characteristic that we investigated recently was **surgency**, which is characterized by high activity levels, risk-taking, and interest in novel situations. We were interested in whether this characteristic related to children's knowledge of what to say in social situations as well as their ability to communicate effectively in everyday life.

As part of a larger study, youth and their parents completed questionnaires and tasks examining their verbal and communicative skills. We found that stronger vocabulary was related to better knowledge of what to say in social situations (but not to observed communicative behaviour). With regards to **surgency**, we found that **for boys, but not for girls, higher levels of surgency related to better observed communicative behaviour.**

This may be because higher **surgency** is more aligned with gender-typical socialization for boys' peer groups (e.g., larger groups, more competition). Indeed, past work has found that **shyness**, sometimes considered on the opposite end of the continuum to **surgency**, is a characteristic that is more difficult for boys' social functioning than girls (Coplan et al., 2007). This said, since gender refers to *socially constructed* roles and behaviours, it is important to consider the time and place of data collection.

This work was presented at the Society for Research in Adolescence.



## 5

## How do teens communicate while playing video games?

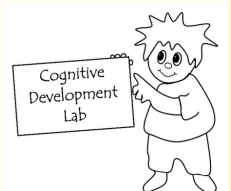
Many teens use **online games** as a platform for social interactions: playing with friends and unfamiliar peers alike. However, it is commonly recognized that communication occurring in these games differs from how the same teens communicate offline. Harassment behaviours such as name-calling, threats, hate speech, and sexual harassment are commonplace and normative in the environment of online gaming.

We were interested in how **contextual features of in-game communication**, such as whether adolescents are speaking or typing, and whether they are speaking to a teammate or an opponent, might impact how **aggressively** or **prosocially** they communicate with peers in online games. Further, we explored how prompting them to consider the goals of the other person could impact their responses.

To explore these questions, older teens (ages 15-19) watched a series of videos of simulated gameplay, imagining that they were the ones playing, and then responded to a **slightly aggressive** message from another player during each game. Half of the teens were prompted to consider the goals of the other player before responding. These responses were then rated on a scale from extremely **aggressive** (-3) to extremely **prosocial** (+3).

**We found that teens generally responded in a slightly aggressive manner.** They were more aggressive when they were communicating with an opponent and when they were speaking their responses. Interestingly, while prompting them to consider the goals of the other player did not affect their tone generally, **it did affect the how teens responded to the contextual aspects of the game.** Namely, the tone of teens who received the prompt did not differ as much between opponents and teammates or speaking and typing. Unlike the general pattern of results, they were more aggressive with teammates and when typing, resulting in more consistent patterns of aggression regardless of the specific context.

This work was presented at the 2026 *Society for Research in Adolescence* conference and the 2025 *Canadian Psychological Association* conference. Follow-up analyses will investigate how the individual characteristics of adolescents relate to their tone.



## 6 Does feedback from a conversational partner make preschoolers better communicators?

An essential aspect of **communication** is knowing when **miscommunication** has occurred. In our past work, we examined how children repair their own communication. In collaboration with colleagues at the University of Calgary, we extended this work by looking at whether children can use **feedback from a speaker** (i.e., the person giving the instructions) to improve their ability to accurately interpret what this person is saying.

Using **eye tracking**, we found that **preschool-age children more quickly identified and chose the correct object (out of a display) when receiving feedback**. Additionally, we found that those children with better **working memory** (the ability to hold in mind and use information) tended to show the most accuracy in their interpretations when being provided with **feedback**. This work helps us understand the way that social input from conversational partners can guide the success of children's communication and the cognitive skills that support this application.

This work was published in the *Journal of Cognition and Development*.

## 7 How, and should, social robots be used to support educational and clinical interventions?

Over the past few years, we have collaborated with researchers across campus to look at the ways in which technology can be used to support children's learning and mental health. We feel it is important for clinical and developmental psychologists to have input into the **technological approaches** that are developed. For instance, in one study, we found children learned better from robots who made mistakes because it prompted the children to teach the robot more.

In another study, a collaboration with colleagues from Computer Engineering, clinical psychologists were asked to provide their opinions as to if **social robots** could/should be incorporated into therapy. The opinions varied widely and reflected substantial skepticism and concern for larger issues such as the **ethics** and detriment to the **therapeutic relationship** – as well as optimism for **streamlining** the more administrative aspects of clinical service. Currently, we are working with colleagues from Systems & Design who are interested in ensuring that a new system for supporting children's **emotional knowledge** is guided by a strong understanding of how and in what sequence children develop the different aspects of **emotional knowledge**.

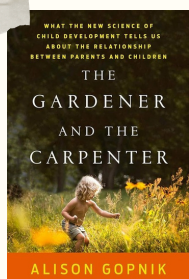
This work was published in *Frontiers* and the *International Journal of Social Robotics*.



# Cognitive Development Lab

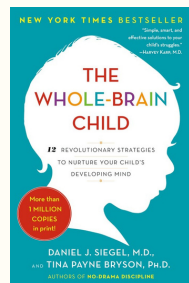
## BOOK RECOMMENDATIONS

Periodically, as a lab, we review books for parents and children that cover topics that we research in the lab such as **empathy**, **cooperation**, and **parenting**. We thought we'd share the compilation of our reviews so far. We welcome suggestions for other books for us to review!



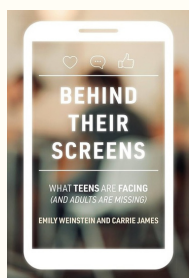
### **The Gardener and The Carpenter** By Alison Gopnik

Contrasts different approaches to parenting. Encourages parents to adopt a “gardener” approach by creating a supportive environment where children can grow and explore.



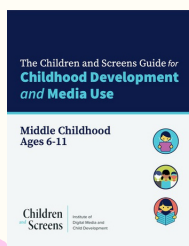
### **The Whole-Brain Child** By Daniel J. Siegel, M.D. and Tina Payne Bryson, Ph.D.

Provides parenting approaches that take into account a child’s cognitive and emotional functioning. Including clear explanations, age-appropriate strategies, and illustrations.



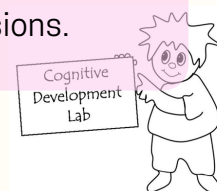
### **Behind Their Screens** By Emily Weinstein and Carrie James

Provide insights into teens’ digital lives. Covers topics like social media, sexting, friendship dynamics, and activism.

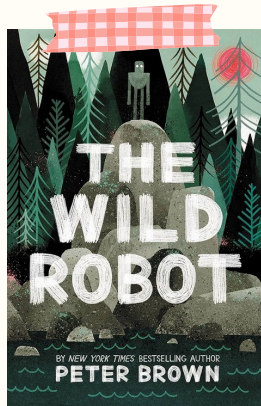


### **Children and Screens Guides for Child Development and Social Media Use**

Available for parents of children ages 0-5, 6-11, and 11-18. Integrates research on child development and digital media use to support parenting decisions.

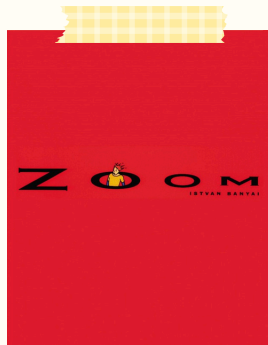


# BOOK RECOMMENDATIONS For Kids!



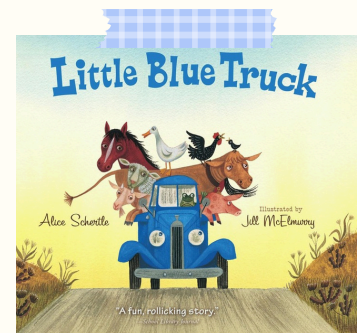
## The Wild Robot

By Peter Brown  
Encourages empathy, resilience, and an appreciation for nature



## Zoom

By Istvan Banyai  
Provides an opportunity for children to share their perceptions and discuss different perspectives.



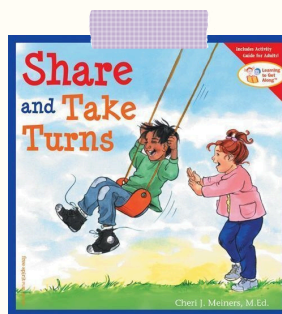
## Little Blue Truck

By Alice Shertle  
Highlights concepts of collaboration and prosocial behaviour



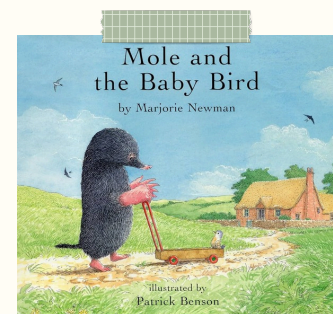
## The Circus Ship

By Chris Van Dusen  
Highlights concepts of cooperation and partnership



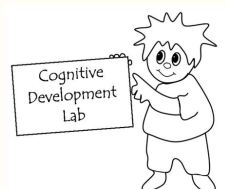
## Share and Take Turns

By Cherie J. Meiners  
Introduces concepts of sharing in a story-like format



## Mole and the Baby Bird

By Marjorie Newman  
Highlights concepts of perspective taking and empathy



# Thank you for reading!

We wish you and your family all the best for the summer months!

## Want to learn more?



Email us at:  
[childresearch@uwaterloo.ca](mailto:childresearch@uwaterloo.ca)



Visit our website at:  
<https://uwaterloo.ca/cognitive-development-lab/>



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