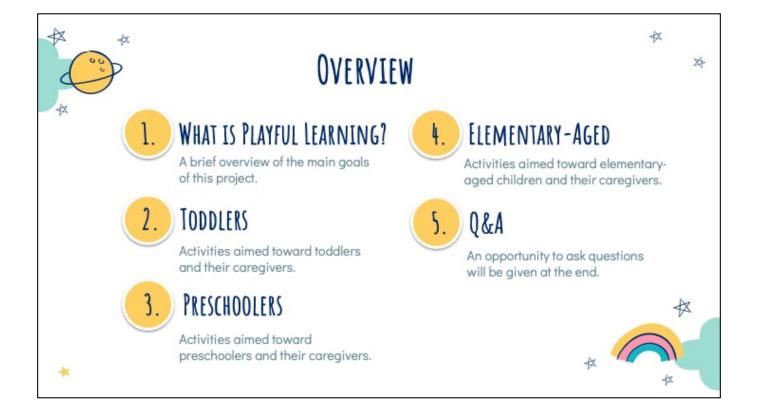


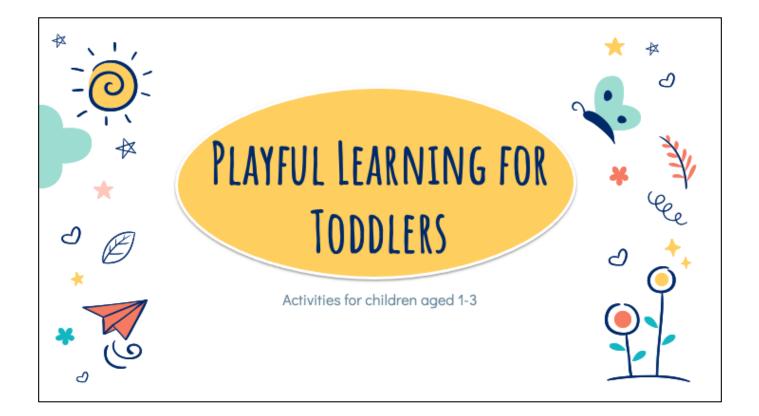
Hello everyone and welcome to our presentation on Playful Learning at the University of Waterloo. My name is Ruhi and my team members are Abby, Marina, and Trinity. Today we will be presenting some ideas for fun and educational activities that children and their caregivers can do on the university campus.



We will begin with a brief overview of what playful learning is, followed by activity ideas aimed toward three age groups; toddlers, preschoolers, and elementary-aged children. At the end we will give you an opportunity to ask any questions that you may have for us.



A playful approach to learning attempts to harness the power of imagination and inspire active engagement with children's learning as they become familiar with novel subjects. We introduce several activities which will allow children to do what they do best (play and have fun), while also learning. Our activities are supported by a wide breadth of research literature which suggests that they will be successful in expanding children's language skills and socio-cognitive development, which in turn will promote academic achievement across the lifespan.



To begin, we have activities for toddlers between 12 months and 3 years old. In these activities, we wanted to provide children an opportunity to interact with their environment, using their five senses to get to know their surroundings. These activities encourage rich conversations between children and caregivers, and are, generally, just a fun way to develop their language skills!



These activities will take place in the university colleges on campus. Namely, the St. Jeromes courtyard, the Renison garden space, and the open green space beside Conrad Grebel. Among these areas, there is tons of green space, a diverse collection of plant and animal life, as well as unique buildings and plenty of areas to run around and play!



So, our first activity is an exploration scavenger hunt ! In this activity, as children and their caregivers are moving from one college to the next, they are encouraged to look around their surroundings for these specific items. Some of the items—like the bridges, the arch, or blue shed—act as landmarks in a specific area and can be spotted year round. The other items are a little bit more ambiguous. They can be found anywhere along the path or within the spaces, and will sometimes be visible, but sometimes won't be, so it's a fun activity that you can repeat more than once, if you weren't able to find all of the objects the first time around.



With that same idea in mind, our second activity is a sensory scavenger hunt. This is a little bit different, as rather than only looking specific objects in your surroundings, children are encouraged to use their five senses to listen, or feel, or smell certain things. For example, they would have to listen to their surroundings and find something loud—like a goose honking—smell the flowers, feel different rocks or tree bark to find something rough or smooth, etc.. So this is just a fun twist on your traditional scavenger hunt that is a little bit more interactive.

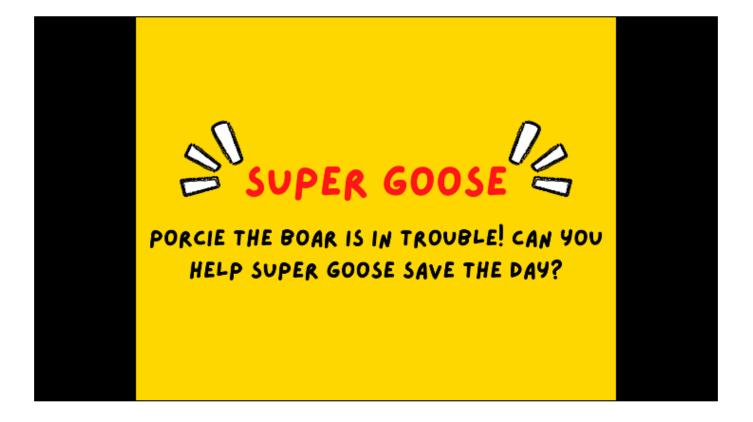


The final activity is some simple colouring sheets. We wanted to provide this as an option if the weather doesn't permit a child to spend much time outside, or as a follow up activity for when a child and caregiver have spent the day on campus, and perhaps completed the scavenger hunts. They're able to colour in a squirrel or a snail which they may have spotted on campus earlier that day. It's just a good conversation starter for caregivers and children, and a simple activity if they can't spend much time outside.

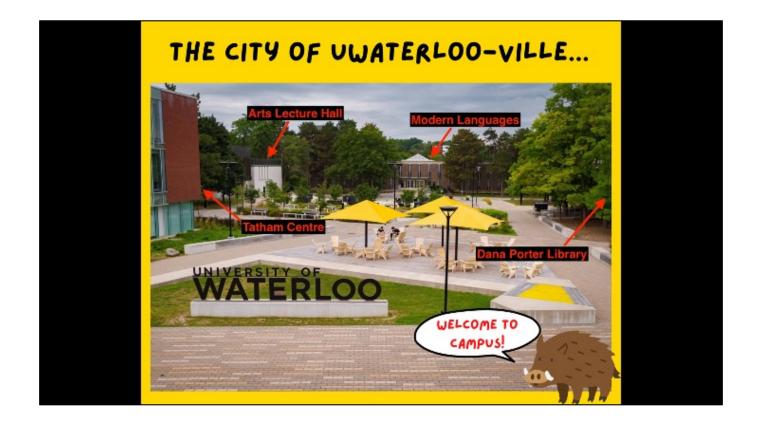
And that completes our activities for toddlers!



While considering what activities to offer for children aged 3-5 years, we wanted to combine elements of story-telling with pretend play, as these components have been shown through a number of studies to be important for language and other skill development at this age. Therefore, we came up with the concept of Super Goose.



Super Goose is a short comic-book story that is centered around Super Goose's attempts to make it across the Art Quad to get to Porcie (aka Porcellino), who is calling out for help. Along the way Super Goose encounters a number of obstacles, which he must overcome. The idea is that caregivers will be able to pull the comic book up on their phone or other device while in the Arts Quad with their child, and they will be able to explore the space while reading through the story.



The story begins with an overview of the Arts Quad, which will help children and their caregivers orient themselves within the space while reading through the story. You can also see a cartoon boar at the bottom right of the panel, who says "welcome to campus!". This cartoon boar will be seen throughout the story asking questions and prompting conversation between caregivers and children.



Here, Super Goose is sleeping on top of Tathum Centre when suddenly Porcie calls out for help. This awakens Super Goose, who is seen in panel three as being alert. The cartoon boar says "Porcie the boar needs help! What could be the problem?"



Super Goose flies down from Tathum Centre and lands on the ground, where he encounters his first obstacle. Panel two shows what the space actually looks like, whereas panel three shows what Super Goose is imagining it as. In this case, Super Goose sees a chasm with a tightrope stretching across it. The cartoon boar says "Oh no! How will Super Goose get across the chasm?".



Super Goose ends up balancing on the tightrope to make it across, and children are encouraged by the cartoon boar to balance with him, thus inviting them to join the story themselves.



Super Goose celebrates, having made it across the chasm, however he is quickly met by another obstacle. Here, Super Goose sees a pit of lava in the green space, with the yellow circles representing rocks. The cartoon boar says "That lava looks hot! How will Super Goose make it across?".



Super Goose jumps from rock to rock to make it across, and the cartoon boar again encourages children to jump with him.



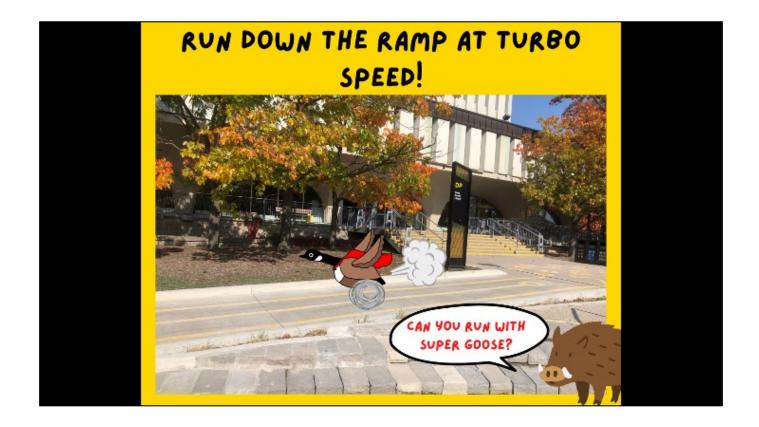
Super Goose celebrates again, before facing his next obstacles. He sees the lines in front of Dana Porter as being lasers. The cartoon boar says "Oh no, lasers! How will Super Goose make it to the other side?"



Super Goose hops over the lasers, and the cartoon boar encourages children to do the same.



Super Goose makes it across the lasers and celebrates, before finding another obstacle. This time he sees a runway on the ramp. The cartoon boar says "A runway! What will Super Goose do?"



Super Goose runs down the ramp at "turbo speed", and the cartoon boar encourages children to do the same.



Super Goose celebrates at the bottom of the ramp before encountering another obstacle. Here, in the open space he sees shark-infested water. The cartoon boar says "Those sharks look hungry! How will Super Goose make it across?"



Super Goose flies across the shark-infested water to get to Porcie, and the cartoon boar encourages children to join him.



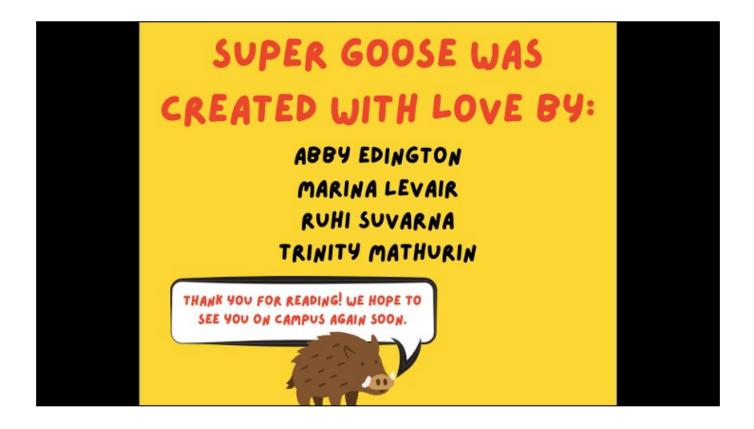
Having finally made it to Porcie, Super Goose asks him what's wrong, to which Porcie says "my nose is itchy!". Super Goose throws his wings up in the air angrily at this. The cartoon boar says "Super Goose looks annoyed! Why is he annoyed?"



Super Goose itches Porcie's nose for him, and children are also encouraged to rub his nose. The cartoon boar says "Fun fact: Campus legend says rubbing Porcie's nose during exam season brings good luck to students!"



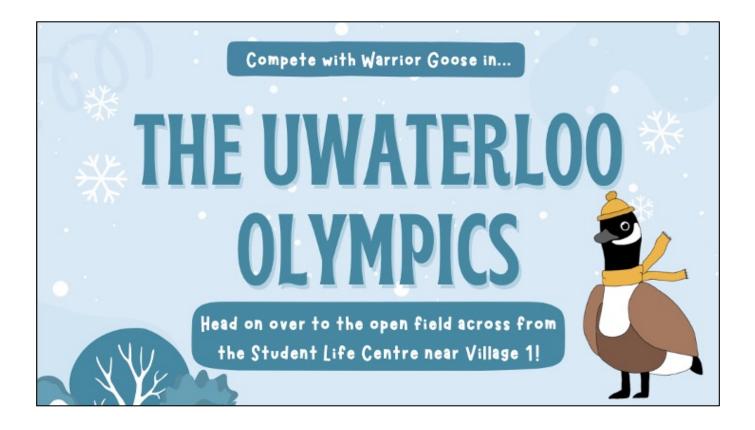
On this slide, children can celebrate completing the mission. The frog and crab at Porcie's feet say "Thanks Super Goose!" and "You're awesome!", and the cartoon boar says "Check out these critters at Porcie's feet! How many can you find?". Thus, children are encouraged to take a closer look at the Porcellino statue after reading the comic book.



Overall, Super Goose is a fun comic-book adventure for children which will allow them to explore the Arts Quad, while also engaging in the important educational acts of reading and story-building.



Now, on to the activities aimed towards elementary-aged children, or about 6-10 years.



For this age group, we wanted kids to compete with warrior goose in the UWaterloo Olympics!



Here we have warrior goose saying "hey kids! Are you ready to compete for Olympic gold? Start stretching and warming up now. I won't be going easy on you. Let the UWterloo Olympic games commence!"

We also have our friendly little yeti telling the kids a fun fact about the first winter Olympic games.



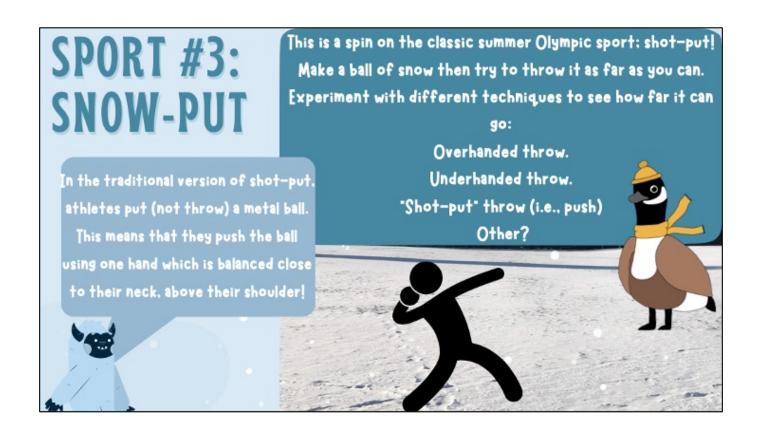
On to sport number one: the luge

Fun fact, luge is the French word for sled, which our friendly yeti is telling us.

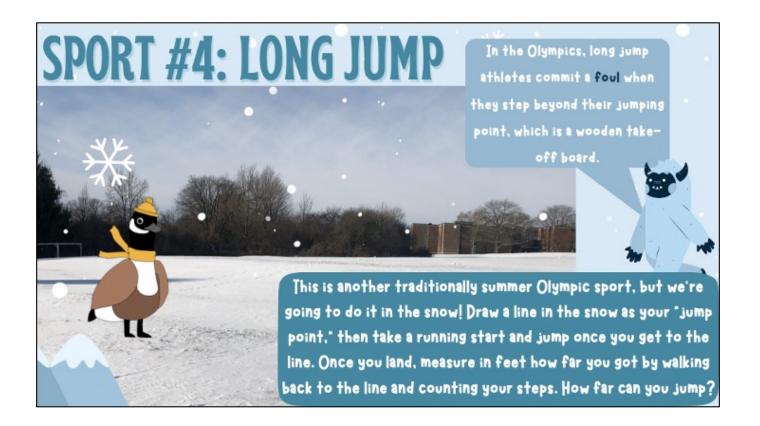
Kids are encouraged to grab their toboggans and slide down a hill with warrior goose. They can also experiment with different techniques, such as getting a running start, and see how it affects the distance they slide and their sliding speed.



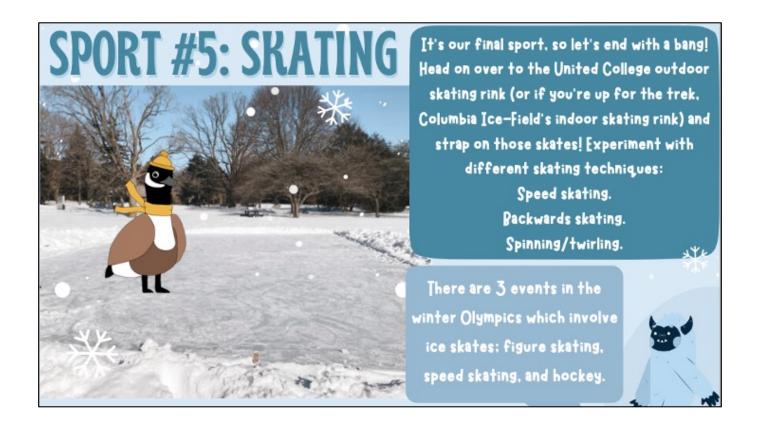
- Although it isn't an official Olympic sport, sport number two in the UWaterloo Olympics is snowman making
- For this event, kids can try to build the tallest snowman they can, and maybe it will be taller than them! Perhaps it will even be taller than the record holder for biggest snowman ever built. They can also experiment with a variety of materials for the eyes and nose, giving their snowman different facial expressions.



- Sport number three is a spin-off on the classic summer Olympic sport, shot-put. Instead of using a traditional shot-put ball, kids can make a snowball and try to throw it as far as possible.
- Warrior goose is also encouraging them to try out some different techniques, including underhand and overhand throws, as well as a traditional shot-put throw, as explained by our friendly yeti.



- Sport number four is long jump, and while it is traditionally a summer Olympic sport, jumping in the snow is always a thrill for kids.
- Warrior goose tells the kids to draw a line in the snow to act as their "jump point", then take a running start and jump once they get to the line. Once they land, they can walk back to their jump point and measure how far away they landed by counting their steps.
- Our friendly yeti also explains what a foul looks like in long jump, so kids can make sure they're playing fair and following the rules.



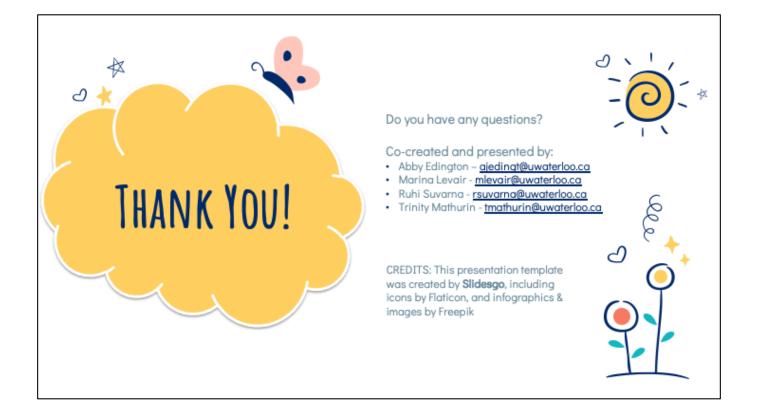
- Our final sport is skating, arguably the most well-known and well-loved winter Olympic sport.
- There are two skating rinks on campus, located outside United College and inside Columbia ice field.

Here, warrior goose encourages kids to strap on their skates and test their skills!

As our friendly yeti tells us, there are three events in the winter Olympics that involve ice skate: figure skating, speed skating, and hockey. Kids can try out figure skating and speed skating on their own, and maybe play a game of hockey or two if they have some friends with them.



Congratulations! You have completed the UWaterloo Olympics! Now kids can design and colour their own Olympic medals while resting after an extraordinarily busy day.



Now we would like to open the floor to any questions, concerns or feedback that you have to offer. Our references are listed on the next slide and we have also attached our emails in case you would like to discuss anything further.

We appreciate everyone taking time out of their busy schedule to come out and listen to our presentation. We hope we offered more insight on this topic and opened some space for more discussion. Thank you everyone.

## REFERENCES

Aram, D., Fine, Y., & Ziv, M. (2013). Enhancing parent-child shared book reading interactions: Promoting references to the book's plot and socio-cognitive themes. *Early childhood research quarterly, 28*(1), 111-122.

Callanan, M., Rigney, J., Nolan-Reyes, C., & Solis, G. (2012). Beyond pedagogy: How children's knowledge develops in the context of everyday parent-child conversations. In A. M. Pinkham, T. Kaefer, & S. B. Neuman (Eds.), *Knowledge development in early childhood* (pp. 52-70). The Guilford Press.

Gomez, E. & Strasser, K. (2021). Language and socioemotional development in early childhood: The role of conversational turns. *Developmental Science*, 24(5). <u>https://doi.org/10.1111/desc.13109</u>

HealthLink BC (2013, August 11). Different types of play for toddlers 12-36 months. https://www.healthlinkbc.ca/pregnancyparentina/parentina-toddlers-12-36-months/toddler-arowth-and-development/different-types

Kaefer, T., Neuman, S. B., & Pinkham, A. M. (2015). Pre-existing background knowledge influences socioeconomic differences in preschoolers' word learning and comprehension. *Reading Psychology*, *36*(3), 203-231.

Kurkul, K. E. & Corriveau, K. H. (2017). Question, explanation, follow-up: A mechanism for learning from others? *Child Development, 89*(1), 280-294. https://doi.org/10.1111/cdev.12726

Lacroix, V., Pomerleau, A., & Malcuit, G. (2002). Properties of adult and adolescent mothers' speech, children's verbal performance and cognitive development in different socioeconomic groups: A longitudinal study. *First Language, 22*, 173-196. <u>https://doi.org/0142-7237/02/2202-0173</u>

## REFERENCES

Leech, K. A. (2021). An intervention to increase conversational turns between parents and young children. *Journal of Child Language*, 48(2), 399-412.

Luo, R., Tamis-LeMonda, C. S., Kuchirko, Y., F. Ng, F., & Liang, E. (2014). Mother-child book-sharing and children's storytelling skills in ethnically diverse, low-income families. *Infant and Child Development, 23*(4), 402-425.

Meredith, L. R., & Catherine, E. S. (2020). Analyzing input quality along three dimensions: Interactive, linguistic, and conceptual. Journal of Child Language, 47(1), 5-21.

Nelson, K. & Fivush, R. (2020). The development of autobiographical memory, autobiographical narratives, and autobiographical consciousness. *Psychological reports, 123*(1), 71-96.

Neuman, S. B., & Celano, D. C. (2012). Worlds Apart: One City, Two Libraries, and Ten Years of Watching Inequality Grow. American Educator, 36(3), 13.

Neuman, S. B., & Moland, N. (2019). Book deserts: The consequences of income segregation on children's access to print. Urban education, 54(1), 126-147.

Nelson, K. E., Welsh, J. A., Trup, E. M. V., & Greenberg, M. T. (2011). Language delays of impoverished preschool children in relation to early academic and emotion recognition skills. *First Language*, *31*(2), 164-194.

Rowe, M. L., Pan, B. A., & Ayoub, C. (2005). Predictors of variation in maternal talk to children: A longitudinal study of low-income families. *Parenting: Science and Practice*, 5(3), 285-310. <u>https://doi.org/10.1207/s15327922par0503\_3</u>

## REFERENCES

Rowe, M. L. (2012). A longitudinal investigation of the role of quantity and quality of child-directed speech in vocabulary development. *Child Development*, 83(5), 1762 – 1774. <u>https://doi.org/10.1111/j.1467-8624.2012.01805.x</u>

Snow, C. E. & Beals, D. E. (2009). Mealtime talk that supports literacy development. New Directions for Child and Adolescent Development, 2006(111), 51-66. https://doi.org/10.1002/cd.155

Snow, P. (2016). Language is literacy is language: Positioning speech language pathology in education policy, practice, paradigms, and polemics. *International Journal of Speech-Language Pathology*, *18*(3), 216-228.

Tompkins, V., Zucker, T. A., Justice, L. M., & Binici, S. (2013). Inferential talk during teacher-child interactions in small-group play. *Early Childhood Research Quarterly, 28*(2), 424-436. https://doi.org/10.1016/j.ecresg.2012.11.001

Winters, K. L. & Griffin, S. M. (2014). Singing is a celebration of language: Using music to enhance young children's vocabularies. Language and Literacy, 16(3), 78-91. <u>https://doi.org/10.20360/G2ZK5X</u>

Wing, C., Kohnert, K., Pham, G., Cordero, K. N., Ebert, K. D., Kan, P. F., & Blaiser, K. (2007). Culturally consistent treatment for late talkers. *Communication Disorders Quarterly*, 29(1), 20-27. <u>https://doi.org/10.1177/1525740108314862</u>