



# Development of the individual

## **Cognitive development**

As a teaching assistant, I have been able to observe how cognitive development is influenced by social interaction, language acquisition, and secure attachment.

Working in primary school, I am actively involved in ensuring each child has the tools they need to reach their full potential.

By implementing strategies such as Wellcomm and speech/language link, alongside my understanding of cognitive development, I can contribute to the pupil's development in an inclusive environment.

This is the website to show how speech and language link work:

[www.speechandlanguage.info](http://www.speechandlanguage.info)

Here is a website explaining WellComm:

Wellcomm-GL Assessment ([gl-assessment.co.uk](http://gl-assessment.co.uk))

This blog will look at three pillars of cognitive development, exploring the theories that underpin them and their practical applications in the classroom.

I will begin by examining the importance of social interaction, drawing on Vygotsky's sociocultural theory. Next, I will explore the role of language acquisition in cognitive development, referencing the work of Piaget. Finally, I will discuss Bowlby's attachment theory, highlighting the importance of secure attachment for emotional wellbeing and learning.

## **Vygotsky's Sociocultural Theory**

Vygotsky, a Russian psychologist, challenged the notion of children passively acquiring knowledge through maturation alone. He proposed a sociocultural approach, arguing that cognitive development is fundamentally a social process.

---

### *Cognitive development*

---

Children learn and internalise new skills and knowledge through interaction with more knowledgeable others, typically adults or peers who possess a higher level of understanding (Cole et al. 1978).

Central to his theory is the Zone of Proximal development (ZPD). Through collaboration within the ZPD, children are scaffolded, receiving guidance and support that allows them to internalise new skills and knowledge.

Working with a patient adult who provides guidance and breaks down lessons with smaller steps, the child can reach a solution that may have been beyond their grasp independently. Over time, with repeated interactions and diminishing levels of support, the child's actual development level expands, incorporating their previously scaffolded skills into their independent skills. This ongoing process allows children to gradually become more independent learners, ultimately reaching their full cognitive potential.

Vygotsky's theory further emphasises the role of language as a tool for thought and learning. Through social interaction, children are exposed to new vocabulary, sentence structures, and ways of thinking. They learn to use language not just for communication, but also for internal problem solving and self-regulation (Moll, 1990).

By discussing new concepts with a parent or teacher, children will not only acquire factual knowledge but also begin to internalise the concept through language, allowing them to apply it to new situations.

---

*Critics argue that it underestimates the role of individual differences in cognitive development, focusing primarily on social factors.*

---

Vygotsky's theory has had a profound impact on educational practices. The concept of the ZPD has informed the development of collaborative learning activities and peer tutoring programmes. Educators now strive to create classrooms that foster social interaction, providing opportunities for students to learn from each other and work within their ZPD's.

Vygotsky's theory is not without limitations. Critics argue that it underestimates the role of individual differences in cognitive development, focusing primarily on social factors.

Additionally, the theory has been challenged for neglecting the influence of cultural contexts on learning processes (Wertsch, 1991).

The size and structure of families also impact opportunities for social interaction. Smaller families or those with limited social networks may provide fewer opportunities for rich communication (Bradley & Bryant, 1983).

Challenges and barriers can disrupt the positive effects of social interaction. Disabilities that affect communication or social interaction, such as autism spectrum disorder, can make it difficult for children to engage with others. Social anxiety or shyness can also impede a child's willingness to interact and collaborate.

Despite these critiques, Vygotsky's sociocultural theory remains a cornerstone of developmental psychology. By appreciating the power of social interaction and the ZPD, educators and other professionals can create learning environments that nurture collaboration, communication, and intellectual growth.

---

*The Curriculum for Wales (2008) emphasises the development of social skills and emotional wellbeing alongside academic skills.*

---

Educators play a key role in fostering social interaction and collaboration in educational settings. By creating inclusive learning environments that value diversity and celebrate different learning styles, educators can encourage collaboration. Implementing cooperative learning activities where children work together towards a common goal can promote communication and problem-solving skills (Johnson & Johnson, 1989).

Practitioners can also model positive social interactions and communication strategies, providing children with the tools they need to interact with their peers.

The Welsh government implements various policies that support social interaction and collaboration in education.

The Curriculum for Wales (2008) emphasises the development of social skills and emotional wellbeing alongside academic skills. It promotes a learner centred approach that encourages active participation and collaboration in the learning process.

Additionally, the Additional Learning Needs and Education Tribunal (Wales) Act (2011) ensures that all children, including those with disabilities, have access to the support and resources they need to thrive socially and academically. This focus on inclusivity and collaboration creates an environment where all children can benefit from the learning power of social interaction.

In conclusion, social interaction and collaboration play a vital role in cognitive development. By acknowledging factors that affect these interactions, addressing challenges, and implementing policies that promote inclusivity, educators and policymakers can create learning environments that encourage cognitive growth. In doing so they can ensure that each child is given the opportunity to flourish and reach their full potential.

### **Reference list**

Bradley, R. & Bryant, P.E. (1983). Mother-child interaction and the development of children's vocabulary. *Child development*, 54(1), 23-30.

Hofstede, G (1980). *Culture's consequences: International differences in work-related values*. Sage Publications.

Johnson, D. W., & Johnson, R. T. (1989). *Cooperation and competition: Theory and research*. Interaction Book Company.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard.

### **Language acquisition and cognitive development**

Language acquisition is intricately linked to a child's cognitive development. Educators play a critical role in creating environments that nurture and encourage language skills.

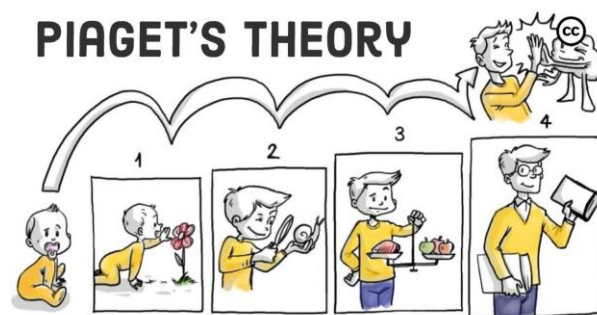
Understanding the link between language acquisition and cognitive development:

Jean Piaget's theory of cognitive development offers valuable insights into this connection. As children progress through different stages, their cognitive abilities evolve, impacting how they acquire language (Bjorklund & Pellegrini, 2022).

Piaget proposed a constructivist approach to cognitive development, suggesting that children are not passive recipients of information. Instead, they actively construct their understanding of the world through interaction with their environment (Siegler & Deloache, 1987). He identified four distinct stages, each characterised by unique cognitive abilities and limitations.

### **Sensorimotor Stage (Birth to 2 years):**

During this initial stage, infants learn about the world primarily through their senses and motor actions. They explore objects through grasping, sucking, and mouthing, developing basic concepts of object permanence and cause and effect. However, they lack symbolic thought and rely on concrete experiences to understand the world (Piaget, 1952). Imagine a young child dropping a toy, laughing at the sound it makes. This repetitive action demonstrates their exploration of cause and effect within the limitations of their sensorimotor stage.



**Preoperational Stage (2 to 7 years):** This stage marks the emergence of symbolic thought. Children begin to use language and mental imagery to represent objects and ideas not physically present. Pretend play, a hallmark of this stage allows them 2 experiments with different roles and scenarios. However, egocentrism, the inability to see things from another's perspective also characterises this stage. Children struggle with conservation tasks, unable to grasp fact the amount of substance remains constant despite changes in its appearance (Piaget, 1952). For instance, a young child may insist they have less juice after it's been poured from a tall, thin glass into a shorter, wider one.

**Concrete operational stage (7 to 11 years):** Logical thinking begins to solidify during this stage. Children can now perform mental operations on concrete objects and understand concepts like reversibility recognising not actions can be undone. They can classify objects based on multiple attributes and solve problems any more logical and organised manner. However abstract reasoning remains limited (Piaget, 1952). Imagine a child successfully sorting a collection of buttons by size and colour, demonstrating their ability to classify based on multiple attributes.

**Formal operational stage (11 years and on):** The pinnacle of Piaget's theory, this stage sees the emergence of abstract reasoning and hypothetical thinking. Adolescents can now deal with abstract concepts like justice, love, and democracy. They can formulate hypothesis test them systematically and engage in logical reasoning with complex propositions This newfound ability empowers then to

think critically, analyse information from multiple perspectives, and solve problems creatively (Piaget 1952). Imagine a teenager debating the merits of different political parties, demonstrating their ability to engage in abstract reasoning.

While Piaget's theory offers a valuable framework for understanding cognitive development, it is also being criticised for underestimating the role of social interaction and culture in learning (Bruner, 1964). Additionally, the rigid boundaries between stages have been challenged, with research suggesting a more continuous developmental process (Bjorklund & Pellegrini, 2002).

Despite these critiques, Piaget's theory remains a cornerstone of developmental psychology. By understanding the different stages, educators can tailor their teaching methods to match the cognitive abilities of their students. For example, activities emphasising sensory exploration would be crucial for young children in the sensorimotor stage, while abstract discussions and problem solving would be more appropriate for students in the formal operational stage.

Piaget's stage theory provides some valuable lens for understanding the journey of cognitive development. By appreciating the unique abilities that emerge at each stage we can create learning environments that nurture intellectual curiosity and empower children to reach their full potential.

Beyond Piaget's stages several factors influence cognitive development. Genetics play a role second stage for brain development and information processing. Nutrition is equally important, with a balanced diet rich in essential nutrients providing the fuel for optimal brain function. Socio economic status also has a significant impact. Poverty can limit access to nutritious food, quality healthcare, and stimulating environments all of which hinder cognitive development.

### **Strategies for effective language development in the classroom:**

Beyond understanding the cognitive stage, educators can utilise specific strategies to promote language development.

**Create a language rich environment:** Surround children without opportunities to hear and use language in a variety of contexts. This includes storytelling, singing songs, engaging in conversations throughout, and providing access to books and other forms of written language (Hoff, 2006).

**Scaffolding techniques:** Offer support and guidance tailored to individual needs. This can involve using prompts, rephrasing, and open-ended questions to help children express themselves and expand their vocabulary. (Wood, Bruner, & Ross, 1976).

**Play based learning:** Play is a natural way for children to learn and explore language educators can create opportunities for collaborative play that encourages children to interact, negotiate, and use language for communication (Pellegrini & Bjorklund, 2008).

**Culturally responsive practises:** Be sensitive to the cultural and linguistic backgrounds of students. Using culturally relevant materials and incorporating students' home languages into the classroom can foster a sense of belonging and support language acquisition (Gay, 2010).

### **Welsh Government Policies and legislation:**

The Welsh Government, alongside initiatives undertaken by the UK government implements various policies and legislation to support language acquisition and cognitive development in children:

**The curriculum for Wales (2008):** This national curriculum framework emphasises the importance of developing all aspects of a child's well-being including their cognitive and linguistic skills. It promotes

a play-based approach in the foundation phase that fosters exploration, communication, and critical thinking skills.

**The Welsh language strategy:** This strategy aims to increase the use of Welsh language across Wales it recognises the importance of bilingualism for cognitive development and promotes Welsh medium education as an option for all children. Early exposure to multiple languages can enhance cognitive flexibility and problem-solving abilities.

**The early years and childcare act 2015 (Wales):** This act places a duty on local authorities in Wales to provide childcare and early education services for all eligible children ages three and four years old. This ensures access to early learning experiences that can support both language acquisition and cognitive development.

By employing these strategies and staying informed about relevant legislation, educators can become champions of language development, ensuring all children have the opportunity to thrive in a world rich with communication.

### Reference list

American Speech- Language-Hearing Association. (2000). Speech & Language Disorders.

<https://www.asha.org/>

Bjorklund, D.F., Pellegrini, A.D (2002). The role of pretend play in children's cognitive development. European Journal of Psychology, 13(4), 341-348. [ Harvard University, department of Psychology, DASH repository]

Bruner, J.S. (1964). Cognitive growth in preadolescence and adolescence. Chapter 11 in M. Haffner (Ed.), The understanding of the child: readings in child psychology. Houghton Mifflin Harcourt.

Curriculum for Wales 2008, hwb.gov. wales.

Gay, G. (2010). Culturally Responsive Teaching. Teachers College Press.

Hoff, E. (2006). How social contexts support and shape language development. Developmental Review, 26(1), 55-88. <https://doi.org/10.1016/j.dr.2005.11.002>

Piaget, J. (1952). The origins of intelligence in children. International University Press.

Welsh Government (2013) Welsh Language Strategy Evaluation Framework, Cardiff.  
<http://gov.wales/statistics-and-research/welsh-language-strategy-evaluation/?lang=en>

Wood, D., Bruner, J. & Ross, G. (1976) "The role of tutoring in problem solving" Journal of child Psychiatry vol.17 pp.89-100.

### Attachment and it's impact on cognitive development:

Cognitive development, learning, thinking, and problem solving, relies on a secure foundation attachment. This blog explores the connection between attachment styles as defined by John Bowlby's theory and cognitive development, examining the factors influencing attachment, the

challenges that can impede it, and how practitioners and policymakers can nurture secure attachment in educational settings, and within the framework of Welsh government policies.

**Bowlby's Attachment Theory:** While Piaget and Vygotsky focus primarily on cognitive processes, Bowlby's attachment theory delves into the emotional foundation for learning. He proposes that the quality of early attachments with caregivers shapes a child's emotional well-being and ability to form secure relationships. Secure attachments provide a sense of safety and security, allowing children to explore their environment with confidence and curiosity. Secure attachments characterised by responsive and supportive care giving, foster a positive internal working model. Children come to see themselves as worthy and believe others will be here for them, creating a foundation for trust and emotional security (Bowlby, 1982).

Conversely insecure attachment styles formed through inconsistent or insensitive care giving, create negative internal working models. Children with anxious attachments may develop a model that views them as unlovable and others as unreliable. This can lead to clinginess or difficulty calming down upon reunion with caregivers (Ainsworth et al, 1978). Alternatively, children with avoidant attachments may develop a model that minimises the importance of closeness, leading them to appear indifferent to separation and reunion. These insecure attachment styles can hinder cognitive development as children grapple with anxiety, mistrust, or difficulty in forming positive relationships with peers and teachers.

The 'strange situation' developed by Mary Ainsworth, a pivotal figure in attachment research, provided a valuable tool for observing these attachment styles in action. This experimental setting involved observing a child's behaviour in a series of separations and reunions with their caregiver. Based on the reactions, researchers categorised children into the three main attachment styles: secure, anxious, and avoidant. The 'Strange Situation' provided empirical evidence for Bowlby's theoretical concepts, demonstrating the impact of early attachment experiences on a child's emotional well-being and social interaction skills.

**Challenges and barriers:** Challenges and barriers can disrupt the formation of secure attachment. Childhood experiences like neglect, abuse, operator mental health issues can significantly impact attachment development (Fonagy et al, 2019). Family instability, such as frequent moves or parental separation can also create feelings of insecurity and anxiety in children.

Early childhood practitioners play a crucial role in supporting attachment:

By creating warm, responsive environments that mirror secure attachment relationships, educators can foster a sense of trust and belonging. Sensitivity to a child's individual needs, offering consistent and positive reinforcement, and providing opportunities for safe exploration contribute significantly to positive attachment development (NICHD Early Childcare Research Network, 2006).

#### **Sensitive Care:**

Educators who attuned to children's cues and respond promptly to their physical and emotional needs build trust and a sense of security. This can involve comforting a crying child, offering help with a task, or simply acknowledging their frustration (Gewirtz & Gewirtz, 2018).

#### **Consistent Routines:**

Providing consistent routines and expectations fosters a sense of predictability and safety in the classroom. Children know what to expect and feel more comfortable exploring and learning (Downer, 2010).

**Positive Relationships and Emotional Support:**

Warm and supportive interactions: Educators Who interact with children in a warm, positive, and supportive manner create a secure base for exploration and learning. This can involve using encouraging language, offering praise for effort, and celebrating achievements (Bowlby, 1982).

**Individualised Attention:**

Taking time to get to know each child's unique personality, interests, and needs demonstrates care and fosters a sense of connection. This can involve incorporating children's ideas into activities or offering differentiated instruction (MacDonald, 2018).

**Collaboration with Families:**

Supporting parents: Educators can collaborate with families to understand the child's home environment and attachment style. This allows for a more consistent approach to meeting the child's needs (Cooper et al, 2006).

**Building Partnerships:**

By fostering open communication and collaboration with families, educators can create a cohesive support system for the child, promoting a sense of security (Morgan et al, 2018).

While educators cannot replace primary caregivers, they can provide a secure and nurturing environment that complements a child's home life. This can have a significant impact on a child's social, emotional, and cognitive development.

**Welsh government Policies and legislation:**

The Welsh government implements many initiatives that support attachment in education:

Statutory Framework for School Improvement in Wales (2018):

This framework emphasises emotional wellbeing and positive relationships (Welsh Government, 2018). This creates a foundation for attachment- supportive practices in schools, as positive relationships between educators and students are crucial for secure attachment (Bowlby, 1982).

The National Social, Emotional and Mental Health (SEMH) approach in Wales (2019):

This approach focuses on fostering positive relationships and building resilience in children (Welsh Government, 2019). This aligns with the attachment theory, which suggests that secure attachments contribute to emotional resilience (Fonagy & Steele, 1995).

### **Funding for Early Years Education:**

The Welsh government prioritises early childhood education through initiatives like the foundation phase, and funding for childcare providers. These initiatives can indirectly support attachment by providing opportunities for children to form secure bonds with caregivers outside the home.

### **Professional Learning for Educators:**

the Welsh government supports professional development for educators in areas like social emotional learning. These programmes can equip educators with skills to build positive relationships with students which is central to attachment theory.

**Limitations:** While these initiatives provide a supportive environment, there's no explicit policy directly addressing attachment in education. Further research is needed to explore how effectively these initiatives translate into practises that directly foster secured attachment within Welsh schools.

In conclusion, attachment is not simply an emotional tie, it is the foundation on Which cognitive development flourishes. Building on Bowlby's theories, educators can recognise the vital role of secure attachment in fostering a child's sense of security, curiosity, and openness to learning. By creating nurturing environments in educational settings, supporting families, and implementing policies that's prioritise children's well-being, we can empower all children to develop secure attachments and reach their full cognitive potential.

### **Reference List**

Ainsworth, M. D. S, Blehar, M. C, Waters, E, & Wall, S. (1978). Patterns of attachment: A psychological study of the Strange Situation, Hillsdale, NJ, Lawrence Erlbaum Associates.

Bowlby, J. (1969). Attachment and loss: vol 1. Attachment. New York, basic Books.

Fonagy, P, Bateman, R, & Fonagy, P. (2019). Attachment theory in clinical practice. Karnac Books.

Howe, H.L (2005). Attachment theory and attachment relationships. Handbook of child psychology (vol 2, pp 228-294).

National Institute of Child Health and Human Development Early Childcare Research Network, (2006). The effects on cognitive and social emotional development. Psychological Science, 17(9), 681-690.

Welsh Government (2014). Social Services and Wellbeing (Wales) Act.

<https://socialcare.wales/resources-guidance/information-and-learning-hub/sswbact/overview>

Welsh Government (2018) National Social Inclusion Strategy for Wales.

<https://www.gov.wales/workforce-equality-diversity-and-inclusion-strategy-2021-to-2026-html>

Vygotsky, Piaget, and Bowlby's theories offer perspectives on how children learn and grow.

Vygotsky's emphasis on social interaction and culture reminds us that learning is not an isolated process but the product of social engagement and guidance within the zone of proximal development.

Piaget's theory provides a valuable framework for understanding the internal process of schema construction and the sequence of cognitive development.

Bowlby's theory explores the importance of emotional well-being as a foundation for cognitive development.

Despite their differences, by recognising factors between each theory, we gain a more comprehensive understanding of the complex and dynamic process of cognitive development in children.