

All about... self-regulation

The ability to control emotional and physical impulses should be developed in the early years to help ensure children embrace learning and grow into self-regulating adults. By *Anne O'Connor*
PHOTOGRAPHS AT MADRESFIELD EARLY YEARS CENTRE, MALVERN BY ANDREW FOX



Self-regulation in its simplest form refers to the ability to control our impulses. When we self-regulate, we can stop doing something even if we don't want to, and we can start to do something that is required of us even if we'd rather not (see www.toolsofthemind.org).

Have you ever wanted to do something you know you shouldn't – and stopped yourself from doing it? Perhaps you stopped yourself eating a whole packet of biscuits, or didn't

spend a month's salary on a fancy gadget? Chances are you manage this kind of self-regulation on a daily basis, because you can think ahead and consider the consequences.

And although we can all probably think of things we've done that we probably shouldn't have, most of us are also capable of turning up for work when we don't feel like it, paying our bills when we'd rather not and waiting our turn in a queue. We make lots of self-regulatory acts that keep us safe physically and emotionally and help us to function socially.

Even young children show early signs of self-regulation when engaged in play

Self-regulation skills actually begin to develop at a very young age

It seems like a very 'grown-up' thing to be able to weigh up consequences and control our impulses, but research is suggesting that our self-regulation skills actually begin to develop at a very young age and play a major part in our cognitive development, as well as the way we develop emotionally and socially.

These 'internal mental processes' (Whitebread 2013) of emotional and behavioural self-regulation are strongly linked with our capacity and motivation for learning and completing cognitive tasks. ➤

However, there is increasing evidence that some children are not developing self-regulation naturally and at an early enough stage, so that problems with impulse control are affecting learning and behaviour, not just when they are young, but also in later life.

Impulse control – or the lack of it – has major implications for our society, from the street where teenagers are binge-drinking on a Friday night to the bankers and politicians who seem incapable of looking ahead to view the possible consequences of their actions (Gerhardt 2010).

It also has implications for our motivation and capacity for learning, affecting our ability to plan and problem solve and to learn from our mistakes, as well as the cognitive and emotional flexibility we need to cope with change.

To consider why some children (and adults) have difficulties with self-regulation, let's start at the beginning and look at how emotional self-regulation develops naturally when the circumstances are right.

REGULATING EMOTIONS

A newborn baby has no control over their feelings and emotions. They may feel warm, dry, comfortable and content, or cold, uncomfortable, hungry and fearful. Being hungry is an intolerable feeling for a young baby because, if nobody feeds them, it really could be the end of their world.

For most infants, these intolerable feelings are soothed when someone comes and lovingly picks them up, feeds them and regulates their emotions for them by making sure they are safe and happy.

When a baby experiences enough warm, consistent, nurturing and contingent responses to their cries (because the carer knows them well enough to work out accurately what they need), this cycle of arousal followed by regulation begins to feel predictable and reliable, and the baby starts to trust that their intolerable feelings will be soothed eventually, if not always immediately.

The parent or carer names these feelings for them (for example, 'Who's a hungry baby, then?'), comforts them if they have to wait ('Don't worry, dinner's coming'), and shows by their actions and responses that they are not overwhelmed by the child's feelings. They help the child to appreciate that they too don't need to be overwhelmed by them – that these



feelings are not, in fact, intolerable and that they can learn to 'self-soothe' (by sucking their thumb, perhaps) or to distract themselves (by playing) while they wait to be fed or changed.

The responsive carer doesn't just model appropriate responses to feelings, but also articulates and regulates them for the infant, gradually – and largely instinctively – handing more responsibility for them to the child as they grow and can handle them for themselves.

BEING RESPONSIVE

The ability to self-regulate our basic emotions of fear and anxiety in this way is also intrinsically linked to our ability to develop and regulate other dispositions, such as flexibility and perseverance. The responsive carer plays a significant role here too. For example, the responsive parent or practitioner knows just how much help to give a child who is struggling to put on their coat or climb down from a tree.

Their supportive presence, offering just the right amount of advice and guidance, sometimes physically, but

Self-regulation, which is important for learning, is influenced by the quality of the child's environment

often just verbally, can make all the difference to a child's sense of personal agency (their capacity to make decisions about how they act) as well as the acquisition of new skills.

This has much in common with Vygotsky's Zone of Proximal Development (ZPD) (1986), which acknowledges that a child often has two levels of capability: what they can do by themselves; and the next developmental level that they can achieve





with the right kind of sensitive support and ‘scaffolding’, so allowing them to move forward but still be in control of their learning.

What is crucial is the sensitivity with which the adult responds. What they don’t do is as important as what they do, together with the way they gradually withdraw the scaffolding at a pace that doesn’t leave the child frustrated at still being unable to achieve the task by themselves. It is this careful process that shifts the child from a state of ‘other-regulation’ to ‘self-regulation’ (Whitebread 2013).

Just as importantly, during self-initiated play, children set their own level of challenge, so they are always playing within their own ZPD and, therefore, at a level that is developmentally appropriate for them. It is not always possible for an adult to set a task that is individually tuned in this way (Whitebread, Coltman, Jameson and Lander 2009).

METACOGNITION

A child’s developing awareness of their own mental processes is known as metacognition. This includes the

knowledge, awareness and control that is applied ‘whenever you undertake any kind of mental task, solve any problem, exercise your creativity, manage and negotiate a social situation, or manage and control your own emotions and motivations’ (Whitebread 2013).

The term was used first by Flavell (1979) to describe the strategies used by young children to help them in a memory task. His experiments with older children (five to ten years) caused him to wonder if younger children could be taught the same strategies. His research found that this was initially the case, but that they couldn’t repeat the strategies later.

He theorised that because they couldn’t apply the skill in a different situation, it wasn’t the skill with which they had the problem but something more significant, relating to their ability to monitor and control their thinking process.

Nelson and Narens (1990) developed a model to represent the two levels of functioning in a mental task and how they work together simultaneously in a feedback loop. They describe the ‘object level’, which is the task (for example, working out a sum); and the ‘meta level’, which refers to all the strategies (knowledge, thinking, self-monitoring and control) that might be needed to complete the task. This includes:

- working memory (being able to hold a thought while you actively work on it)

A responsive parent or practitioner knows just how much help to give

- the control to not be distracted and forget what you were doing
- the knowledge to pick a strategy that will work best from a selection stored in your head
- the flexibility to switch or modify strategies if the one you’ve selected isn’t right for the task or you need to go back to an earlier stage
- the monitoring to know where you are up to in the task as well as detecting and correcting errors or to increase concentration.

The feedback from the object level to the meta level provides the information about how well the task is going. The feedback going the other way, from meta to object level, provides instructions about what to do next (Whitebread 2013).

These elements of metacognition, together with the positive dispositions and motivations for learning that are linked with emotional regulation, have come to be referred to together under the umbrella term of ‘self-regulation’.

There is a growing body of research indicating that the underlying abilities of self-regulation begin to develop in the earliest months. David Whitebread argues there is good evidence to suggest that early self-regulatory abilities lie at the core of children’s development as effective powerful learners and that ‘the quality of the experience and environments we provide... can have a profound effect on these developments’ (Whitebread 2013). ➤

WHAT DOES A SELF-REGULATED CHILD LOOK LIKE?

Self-regulation may look different at varying stages of development, but a self-regulated child is likely to show degrees of:

- resilience
- patience
- perseverance
- determination
- self-motivation
- positivity
- creativity
- problem solving
- adaptability.

A child who has difficulties with self-regulation may find it hard to:

- wait – for attention, for their turn, for reward
- be flexible – to cope with

change, to be curious about new things and events, to shift their mindset

- persevere – when things are challenging, don’t go their way, when they make mistakes
- control – their mood, their actions, their emotional responses, their physical reactions
- understand cause and effect and consequences – they won’t seem to learn from experience
- take risks – physically, emotionally or socially
- conversely, be aware of personal safety – may

engage in physically or socially risky behaviour.

It is important to note that being self-regulated is not the same as being compliant. An over-compliant child may have very little self-regulation, relying always on the approval and direction of others.

A self-regulated child may not always be compliant. They will be determined and creative, with strong motivations and a curiosity that will demand authentic responses from adults and peers. They may question rules even while abiding by them.

IMPORTANCE OF PLAY

One of the most important ways in which we can support the development of children's self-regulation skills (including metacognition) is through play, particularly pretence or symbolic and physical play.

It has been hard in recent times to keep play at the forefront of early years care and education as top-down concerns about 'results' and target-driven standards have made it something that must be purposeful and structured. This implies the dominant role of the adult in structuring and creating that purpose. Here is a very strong argument (if ever we needed one) for the fundamental importance of spontaneous, child-initiated play that provokes, as well as supports, development, preparing children for 'effortful, problem-solving or creative tasks which require a high level of metacognitive and self-regulatory skills' (Whitebread, Coltman, Jameson and Lander 2009).

Even very young children engaged in developmentally appropriate play that is meaningful to them show early signs of self-regulation and metacognition. When playing in the home corner or building with blocks, for example, they are likely to be planning, organising and rehearsing roles as they move the play forward on their own or with others.

They set their own goals, try out different strategies to achieve them, and monitor their success and adapt the play accordingly. When they 'step outside' of roles to manage and direct

the play (for example, 'You're the baby and you do something naughty'), or talk through strategies with themselves and others ('No, that won't work, we need to do something different'), they are reinforcing the 'meta' feedback by giving words to their developing metacognitive skills, while increasing their metacognition through the use of language.

IMPORTANCE OF TALK

Children not only talk to adults and other children when they play, but also to themselves and objects, providing a commentary to their actions. This kind of self-talk, whether aloud or internally, is a crucial element of metacognition.

Children regulate the behaviour of others (including their toys) as well as themselves through talk, and this also plays an important part in their development.

Opportunities to reflect on their play and talk about their learning, about what they can do and what they want to be able to learn next, are an important feature of good early years practice, as is hearing adults and more experienced peers talk explicitly about ways of working, about new ideas and strategies and how they link with past experiences.

Opportunities for 'sustained shared thinking', where adult and child share joint attention following the child's interests and motivations, have been found to be more effective in developing language and metacognition skills than adult-directed tasks

Children regulate the behaviour of others as well as themselves through talk



that have no meaning for the child. Open-ended questions that allow the child to reflect on their own thought processes and engage in authentic conversations (rather than just searching for the answer that the adult wants) are also important, as are questions that prompt the child to work out memory strategies for themselves.

MENTAL EFFORT AND MOTIVATION

This kind of authentic talk offers intellectual challenge, developing in children the sense that achievements are possible through their own mental efforts, rather than just knowing the right answer. This makes all the difference to motivation and positive dispositions for learning.

A small child who feels they have no sense of agency in the world can quickly assume that there is no point in making an effort to learn something new or to stretch themselves. This fosters the belief that all learning ability is fixed (for example, that someone is either clever or not clever; sporty or not sporty; good at maths or bad at maths) and that there is not much the individual can do about it (Dweck and Master 2008).





The value of play, and opportunities to reflect on it, should not be underestimated

Effective self-regulation not only inhibits or challenges such negative self-talk, but also triggers the motivation needed for the mental effort to overcome adversity, to explore new ways of thinking and adapt to change when necessary; all useful attributes.

THE LINK WITH SECURE ATTACHMENT

It is easy to see that a child's early emotional experiences and the warmth and consistency with which they are parented and cared for will have an enormous impact on their ability to self-regulate. This is another reason why the quality of early childhood settings is so important – a nurturing environment that provides developmentally appropriate challenge as well as sensitive and attuned 'scaffolding' can support vulnerable children and their families.

But, as is often the case, what's good for vulnerable children is good for all children.

A nurturing environment that offers opportunities for spontaneous and self-directed physical activity and pretend play, where adults are responsive and tuned into the children in their care, so that they can follow their interests and provide the

right amount of intellectual challenge as well as sensitive guidance, will spur children to want to keep on learning and striving towards new achievements, whatever their developmental level.

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EXECUTIVE FUNCTIONS

'Executive functions' is a term often used to describe the cognitive processes we use to control our mental and behavioural activity and includes:

- Inhibition** – ability to control impulses
- Shift** – to move or think flexibly from one situation to another
- Emotional control** – using rational thought to regulate emotions and feelings
- Initiation** – 'get up and go'/independently generate ideas and responses and to begin tasks or activities

Working memory – hold information in mind while working on a task

Planning/organisation – to manage tasks and plan ahead

Organisation of material – impose order on work, play and storage places

Self monitoring – to monitor own performance and against what is needed or expected

(Adapted from *Late, Lost, and Unprepared: A Parents' Guide to Helping Children with Executive Functioning* by Joyce Cooper-Kahn and Laurie Dietzel 2008)