

The Necessity of Distraction

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When did early years become synonymous with beige? This is certainly the message which comes across time and time again when reading EY forum posts. Where did the idea come from that in order for children to get the best out of toys they should all be natural in colour, that display boards should be backed with beige sugar paper, and that use of colour causes distraction which can impede a child's development? There have certainly been a few studies published which have aimed to explore this idea (Craik et al., 1996; Kannass and Colombo, 2007; Fisher et al., 2015). It has been reported that in a classroom with visual distraction removed i.e. bare walls, children of preschool age, are more likely to stay on task and remain focussed. However, the authors do state that once a child has become habituated to a classroom, even with its visual, distracting displays, there is every chance that their level of focus will be similar to that of the bare classroom (Fisher et al, 2015). This means that what this paper was actually investigating was the effect of a new environment on learning, not the long term effect of learning within in this environment. Similarly, Hanley et al., (2017) examined the impact of classroom displays on learning and found that children were distracted by bright and colourful displays, more so if the child had autism. But again, what seems to have been overlooked in these studies is the fact that the bright colourful displays used were new to the children, and it is therefore not unexpected that they would be perceived as stimulating and exciting. I would imagine that a bare walled classroom with a single red ball on the teacher's desk would cause a similar level of distraction, simply because it was different, but once it is normal i.e. the child had experienced that brightly coloured classroom for a few days, it is likely that they will no longer be distracted by it. I am a farmer's daughter and this reminds me of the first day when the cattle were let out of the barns after winter. Off they would gallop, skipping and leaping around the field, distracted and excited by the new sights and smells around them. Sometimes, to the point that they would jump through the hedge and be off! Quite a sight when one of the animals is a one tonne Hereford bull called Omar. But this only happened on day one, actually hour one, after that they settled down i.e. they had become habituated to the environment.

But I want to look at this in another way, what if distraction is a good thing? What if exposure to distraction is a vital part of brain development? I am distracted right now, my aim at 23.17 this evening was to lift myself up off the sofa and head to bed, instead I have been distracted by an article I read earlier in the day which stated that the distraction of colour can impede a child's development (Kimberley, 2017). Can this really be true, would our world be a better place if it was monochrome?

What we do know is that the early years is the most important time in a child's life for the development of 'executive function skills'. This is the art of multi-tasking, planning, focusing our attention, changing direction. A metaphor to describe this is that it is the brain's air traffic control system (Center on the Developing Child at Harvard University, 2011), "Can you keep your head when all about you are losing theirs?" (Kipling, 1910). The point is, you have to learn to do it amidst distraction, taking away distraction in the early years setting e.g. by removing colour, is effectively

depriving the child of learning this skill. The ability to focus on a tedious task, completing a long held goal, and monitor our ability to achieve said goal is one which we all need to be able to do. If you have been shielded from distraction during the point in your life when your brain is developing rapidly, with competitive elimination of synaptic pathways beginning and increasing grey matter being accumulated (Lenroot and Giedd, 2006), surely this will be detrimental to the development of their executive function skills?

Also known as inhibitory control, the ability to ignore impulses, resist temptation and to focus on the task in hand; the early years are a key time for its development. In the classroom this could be developing the ability not to hit Thomas with a brick after he has done the same to you, it is the ability to 'bite your tongue' (Center on the Developing Child at Harvard University, 2011). "Contrary to popular belief, learning to control impulses, pay attention, and retain information actively in one's memory does not happen automatically as children mature, and young children who have problems with these skills will not necessarily outgrow them" (Center on the Developing Child at Harvard University, 2011, p.10). This is further corroborated by Cavallina et al. (2018, p.91) who highlight the fact that "selective attention, the ability to search for a target while ignoring distracting stimuli, is a core function of human cognition". Therefore, if inhibitory control is something which has to be learnt, then children must be exposed to distraction in order to learn to ignore it.

Removing distraction, be it the colours of the blocks used to build with, or the bright inviting sugar paper used on our walls, is taking away the one thing which is perhaps most important to the developing brain, The brain responds to distraction, it develops as a result of it and works better as a result of it. But we also need to know when and how to ignore it, this is the skill we need to focus on developing in the early years. Plus, let's face it, that brightly coloured sugar paper is probably the impetus for the child to look up at the display in the first place. Lucinda Lambton may have said 'to learn to appreciate architecture is to learn to look up', but there has to be something to trigger that response in the first place. Art galleries sussed this out eons ago, there are no beige walls in the Louvre, because they use bold colour on the walls to focus your attention on the masterpieces hung on them.

Barrett, et al., 2015, published a research study which aimed to identify the effects of the built learning space on student learning in primary schools. They concluded that natural light (but not direct sunlight) and good air quality were the most significant factors correlated with high student learning outcomes. Interestingly as a side point, research on room colour has revealed that room colour can have an effect on both emotions and physiology which have the potential to cause mood swings which can have an impact on performance (Küller et al, 2009). I don't think that beige can ever be described as a 'happy' colour. In fact, the use of pale walls in buildings is recognised as a contributing factor is 'sick building syndrome', the symptoms of which headache, fatigue, runny nose, mucous irritation and difficulty in concentrating (the irony) (Ashrafi and Naeini, 2016).

We have a duty within the Early Years to provide distraction, without it how can children ever learn to ignore it? To be able to navigate in the 'real world' where they have no control over what distractions come their way? Everyone knows about this generation of 'cotton wool kids'; children, who are unable to identify risk because all of the potential dangers that they could have experienced in early childhood were removed by caring yet overly precautionary parents/caregivers. Essentially denying them the tool set they need to live safely e.g. when they are finally allowed to walk to

school by themselves when they start high school; it is no coincidence that children of this age group are more likely to be killed or injured in a road traffic accident whilst on foot (Child Accident Prevention Trust, 2014).

In addition to needing to develop the skill to focus amidst distraction, sometimes distractions are very useful in themselves. Do you get your best ideas in the shower? Isn't this when you should be focusing on the tedious task of washing your hair? In this case distraction is enabling your incredible brain to actively work out solutions to problems that you had no hope of solving at work, but it does it, without you apparently having to 'think about it'. This idea is corroborated by Carson (2010), who states that "In some ways distractions are a form of mindfulness—being mindful of your environment and noticing more new things," and that "Being open to them allows for the ability to take bits of information and combine them in novel ways that are useful or adaptive." (Fast Company, 2014, p.1). Furthermore, Carson (2010) has reported that distractions lift mood, isn't it more important to have an enjoyable learning experience, and if adding the distraction of colour is a way to achieve this, isn't this something that we should be doing? Beige backed displays are depressing and whilst I can appreciate the beauty of using natural objects as part of our loose parts provision, the distraction of the occasional use of colour adds further richness to the experience.

Aren't distractions brilliant? They helped me to write this article for a start. Why do we want to deprive our children of the experience of distraction?

References

Ashrafi, S.E. and Naeini, H.S. 2016. Determination of Effective Factors on Reduction of Sick Building Syndrome in Designing Educational Environments. *International Journal of Advanced Biotechnology and Research*. **7**(4), pp. 144-152.

Barrett, PS, Davies, F, Zhang, Y and Barrett, L. 2015. 'The impact of classroom design on pupils' learning: final results of a holistic, multi-level analysis'. *Building and Environment*. **89**, pp. 118-133.

Carson, S. 2010. *Your Creative Brain: Seven Steps to Maximize Imagination, Productivity, and Innovation in Your Life*. Wiley: Jossey-Bass.

Cavallina, C., Puccioa, G., Capurso, M., Bremnerb, A.J., and Santangelo, V. 2018. Cognitive development attenuates audiovisual distraction and promotes the selection of task-relevant perceptual saliency during visual search on complex scenes, *Cognition*. **180**, pp. 91-98.

Center on the Developing Child at Harvard University (2011). *Building the Brain's "Air Traffic Control" System: How Early Experiences Shape the Development of Executive Function: Working Paper No. 11*. Retrieved from www.developingchild.harvard.edu.

Craik, F. I. M., Govoni, R., Naveh-Benjamin, M., and Anderson, N. D. 1996. The effects of divided attention on encoding and retrieval processes in human memory. *Journal of Experimental Psychology: General*. **125**, pp.159–180.

Fast Company. 2014. 3 Reasons you should let yourself get distracted [online]. *The Future of Work* [viewed 23 July 2018]. Available <https://www.fastcompany.com/3034707/3-reasons-you-should-let-yourself-get-distracted.html>.

Fisher, A., Godwin, K., Seltman, H. 2014. Visual Environment, Attention Allocation, and Learning in Young Children: When Too Much of a Good Thing May Be Bad. *Psychological Science*. **25** (7), pp. 1362-1370.

Hanley, M., Khairat, M., Taylor, K., Wilson, R., Cole-Fletcher, R. and Riby D.M. 2017. Classroom displays-Attraction or distraction? Evidence of impact on attention and learning from children with and without autism. *Developmental Psychology*. **53**(7), pp. 1265-1275.

Kannass, K. N., and Colombo, J. 2007. The effects of continuous and intermittent distraction on attention and cognitive performance in preschoolers. *Journal of Cognition and Development*. **8**, pp.63–77.

Kimberley (2017) Why coloured display backing causes distraction for children [online] *Early Years Careers*. [viewed 23 July 2018]. Available from <http://www.earlyyearscreers.com/eyc/enabling-environment/why-coloured-display-backing-causes-distraction-for-children.html>

Kipling, R. (1910) If. In: *Rewards and Fairies*, Macmillan & Co, London

Küller R, Mikellides B. and Janssens J. 2009. Color, arousal, and Performance. A comparison of three experiments. *Colour Research and Application*. **34**(2), pp. 141-152.

Lenroot, R.K. and Giedd, J.N .2006. Review: Brain development in children and adolescents: Insights from anatomical magnetic resonance imaging. *Neuroscience and Biobehavioral Reviews*. **30**, pp. 718–729.

Child Accident Prevention Trust. 2014. Child deaths from road traffic accidents [online] *Making the link*. [viewed 23 July 2018]. Available from <http://makingthelink.net/child-deaths-road-traffic-accidents.html>