# School starting age: the evidence



Earlier this month the "Too Much, Too Soon" campaign made headlines with a letter calling for a change to the start age for formal learning in schools. Here, one of the signatories, Cambridge researcher David Whitebread, from the <a href="Faculty of Education">Faculty of Education</a> (<a href="http://www.cam.ac.uk/affiliations/faculty-of-education">http://www.cam.ac.uk/affiliations/faculty-of-education</a>), explains why children may need more time to develop before their formal education begins in earnest.

In England children now start formal schooling, and the formal teaching of literacy and numeracy at the age of four. A recent letter signed by around 130 early childhood education experts, including myself, published in the Daily Telegraph (11 Sept 2013) advocated an extension of informal, play-based pre-school provision and a delay to the start of formal 'schooling' in England from the current effective start until the age of seven (in line with a number of other European countries who currently have higher levels of academic achievement and child well-being).

In the interests of children's academic achievements and their emotional well-being, the UK government should take this evidence seriously

- David Whitebread

This is a brief review of the relevant <u>research evidence</u>
<a href="mailto:(http://www.importanceofplay.eu/IMG/pdf/dr david whitebread - the importance of play.pdf">http://www.importanceofplay.eu/IMG/pdf/dr david whitebread - the importance of play.pdf</a>) which overwhelmingly supports a later start to formal

education. This evidence relates to the contribution of <u>playful experiences</u> (<a href="http://www.cam.ac.uk/research/news/music-of-kindness-playing-together-strengthens-empathy-in-children">http://www.cam.ac.uk/research/news/music-of-kindness-playing-together-strengthens-empathy-in-children</a>) to children's development as learners, and the consequences of starting formal learning at the age of four to five years of age

There are several strands of evidence which all point towards the importance of play in young children's development, and the value of an extended period of playful learning before the start of formal schooling. These arise from anthropological, psychological, neuroscientific and educational studies. Anthropological studies of children's play in extant hunter-gatherer societies, and evolutionary psychology studies of play in the young of other mammalian species, have identified play as an adaptation which evolved in early human social groups. It enabled humans to become powerful learners and problem-solvers. Neuroscientific studies have shown that playful activity leads to synaptic growth, particularly in the frontal cortex, the part of the brain responsible for all the uniquely human higher mental functions.

In my own area of experimental and developmental psychology, studies have also consistently demonstrated the superior learning and motivation arising from playful, as opposed to instructional, approaches to learning in children. Pretence play supports children's early development of symbolic representational skills, including those of literacy, more powerfully than direct instruction. Physical, constructional and social play supports children in developing their skills of intellectual and emotional 'self-regulation', skills which have been shown to be crucial in early learning and development. Perhaps most worrying, a number of studies have documented the loss of play opportunities for children over the second half of the 20th century and demonstrated a clear link with increased indicators of stress and mental health problems.

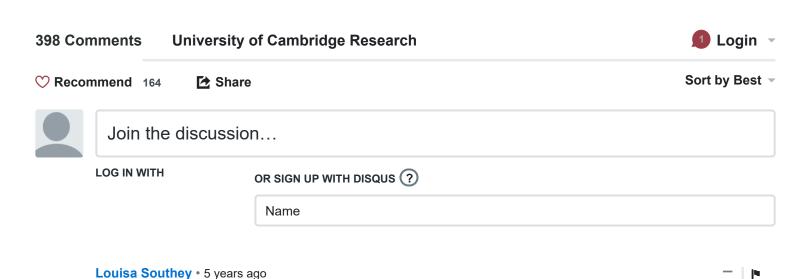
Within educational research, a number of longitudinal studies have demonstrated superior academic, motivational and well-being outcomes for children who had attended child-initiated, play-based pre-school programmes. One particular study of 3,000 children across England, funded by the Department for Education themselves, showed that an extended period of high quality, play-based pre-school education was of particular advantage to children from disadvantaged households.

Studies have compared groups of children in New Zealand who started formal literacy lessons at ages 5 and 7. Their results show that the early introduction of formal learning approaches to literacy does not improve children's reading development, and may be damaging. By the age of 11 there was no difference in reading ability level between the two groups, but the children who started at 5 developed less positive attitudes to reading, and showed poorer text comprehension than those children who had started later. In a separate study of reading achievement in 15 year olds across 55 countries, researchers showed that there was no significant association between reading achievement and school entry age.

This body of evidence raises important and serious questions concerning the direction of travel of early childhood education policy currently in England. In the interests of children's academic achievements and their emotional well-being, the UK government should take

(c) BY-NG-SA (http://creativecommons.org/licenses/by-nc-sa/3.0/)

This work is licensed under a <u>Creative Commons Licence</u> (<a href="http://creativecommons.org/licenses/by-nc-sa/3.0/">http://creativecommons.org/licenses/by-nc-sa/3.0/</a>) . If you use this content on your site please link back to this page.



When you home educate you realise that formal learning and learning through play are irrelevant terms. Children learn continuously in a multitude of ways, sometimes as a result of games they play and sometimes with direct relavence to their everyday lives. Formal learning is done to control children in a classroom setting and has nothing to do with what is best for the child.

evatissej → Louisa Southey • 5 years ago

well said. At schools we program children to fit in this capitalist society. It is like being in a factory however in this case the product are indoctrinate and ready to keep the economical engine working humans

261 ^ V • Reply • Share >

### McPherson Consulting → evatissej • 5 years ago

Well, capitalist or communist... same difference, ultimately, as both are economic systems that emphasize production and growth rather than people and sustainability. I think it's important to recognize this, because I think that for education to move in the direction that it needs to, we need to stop associating this view or that view with "left" or "right." Play-based ECE running later, experiential learning in middle years, connectivist learning in senior years will be good for people and economics and the planet, no matter what the political milieu.

316 A V • Reply • Share

>growth

Communism means production according to social requirements, not "growth". What you are referring to is the fact that a communist society would have to develop the economies of underdeveloped countries - but that is not the pursuit of growth for its own sake. The only situation in which growth is sought as such is if it is a social requirement.

```
RJCP → McPherson Consulting • 2 years ago

Thank you

Reply • Share >

Dalin Drake → McPherson Consulting • 2 years ago
```

Well technically REAL communism would be based on community interaction and involvement, not emphasizing any growth or production above what is required for stable living. This is not what other countries have tried and failed at which is more along the lines of socialism without the all the material debris that comes from capitalism hence the failing. It's like the difference between REAL anarchy (how a society can function without written law) and LEARNED anarchy which is what we were taught it was in middle school (Big billy is biggest and gets what he wants because he can take it.) Really that definition of anarchy fits every single "-ism" economic policy out there, it's just a matter of what makes "Billy" so "big" (money, rank, celebrity status, a microphone, etc.) Funny how they leave out that if Billy was tiny and had \$60B he'd still get whatever he wants in a capitalist society. If Billy was a socialist and was at the top of the political ladder he'd get to influence distribution as he saw fit. Very few real communist examples. Even fewer anarchist ones.

```
evatissej → McPherson Consulting • 3 years ago
agreed I have not comment on communism

Reply • Share >

Ray → evatissej • 4 years ago
```

Actually, it has less to do with a system than it has to do with the principles accepted as fundamental and true in society as a whole. Any system will simply take shape around the principles accepted by the majority of people.



if you think of schools as a free day care so parents can work it becomes more obvious why they are they way they are.

#### Ray → Seline • 4 years ago

Yeah, there's certainly that aspect to it. Schools are a lot of things though, the reasons parents give their children to them for the majority of their growing years are varied and more complex than that I think, but you've touched on a big piece of it.

And it is a legal requirement.

#### KaiKewley → AC • 4 years ago

No it isn't - https://www.gov.uk/home-edu...

#### potrxmom → AC • 3 years ago

No, it's not. That is why home schooling & unschooling are becoming more & more abundant. There is nothing that states your child must attend a school. At least in the US, I can't speak for any other country.

#### Emma Louise → potrxmom • 3 years ago

In australia it is requirement that ur child attends school or are home schooled using a specific curriculum handed out by the edu dept from age 5. Pre-prep (kindy) has been rolled out slowly so children now start school the year they turn 4 providing its before june 30

#### BillS → Emma Louise • 3 years ago

Not true in Victoria. We are only required to register, which includes an agreement to educate in the 8 key learning areas. As long as we keep records to show what we're doing, we don't have to follow a government curriculum. We have great freedom, and have unschooled at times too.



Nope. There is no legal requirement to enrol your child in school until age 7. This is Australia wide.



#### **Tania** → Emma Louise • 3 years ago

Not true for us in Northern NSW. They just have to start before they are 6 unless

you apply to home-school. My son can start next year if we want him to or we can start him the following year.

chantelle → Seline • 4 years ago

Exactly!

4 ^ V • Reply • Share >

Judy → Seline • 3 years ago

FREE? My taxes tell me otherwise

∧ V • Reply • Share >

Patricia Agbewornu → Seline • 4 years ago

Exactly!! Very well said.

Dalin Drake → Ray • 2 years ago

Very well put, and it's always harder to get people to grow internally and change to be what will help them and those around them the most. Bureaucracy is the preferred method now, and it's all about a "set it and forget it" style of governance which hurts our ability to rip up old, flawed, tired, non-functioning models from our system.

Once people begin to change in a wave (which may be occurring since most humans will take an easy path and won't change until they see it is "acceptable" to change and that may be starting to finally happen thanks to growing up with the internet and other useful communication and information technologies.) then we will see more "perfected" systems... although for it to be "perfect" (still not by definition) we will all be participating in and as a local community and as a world. No more bureaucracy, no more representing anybody but ourselves.

**RJCP** → evatissej • 2 years ago

Wow. More accurately, a socialist society where all are treated as if they are the same and all individual developmental variations are sacrificed for the collective...

∧ V • Reply • Share >

rufusevison → evatissej • 3 years ago

See the rsa animate video about changing education paradigms. A great summary of what we have and why.

∧ V • Reply • Share >

me d → Louisa Southey • 5 years ago

Home schooling is a crock of s\*\*t. It has absolutely nothing to do with education. It's a pack of reactionary lunatics insisting on keeping their children away from learning what the rest of the world is like so they can ensure their idiotic ideologies are perpetuated instead of being killed by contact with reality.

292 A V • Reply • Share

Former home schooler here. Both my parents are atheist and not lunatics (so I believe). Played sports throughout school and am finishing up grad school now.

I will hopefully survive my contact with reality. There are lots of children home schooled for reasons that have nothing to do with religion or ideology.

#### Bernadette Christie Coben → gatorcooken • 4 years ago

My daughter failed Grade 8 for MANY reasons, mostly not her fault, moving, sickness etc. I home schooled her and she got all of grade 8 and 9 in first year, AND 40 of 100 credits the following year.. 100 being 10, 11, and 12. For her she freaked when people talked about home school kids don't have to do it. It really promoted her self esteem, knowing that she could DO IT, and the support we got from the department of Education was amazing. We had some tests done and found out some things about her learning style that I wish I had done with my first, not my fourth child. In grade 11 we moved and I sent her back to school, so she would graduate with friends, and get some different opinions on life. It will always be one of the best things we did as parents, we had such a bonding time for us and our daughter, and I wish I had done it with each of my children for a couple of years. PS I am not against 12 years of homeschooling but I am not sure I could handle it as a parent!!

#### **Leah Wilson** → Bernadette Christie Coben • a year ago

Home schooling is really good for kids with no friends who arent happy at school.

'Both my parents are atheist and not lunatics' what is that supposed to mean? Everyone who does not share your world view is a potential lunatic?

I think she was referring to an accusation made earlier that people who home school their kids have an obsessive agenda to indoctrinate them. Hence the comment about atheist and not lunatic... I have no strong feelings about this subject, I just think you read this comment without the context she was placing it in:)

rufusevison → roisinae • 3 years ago

Here, here!

1 ^ V • Reply • Share >

donnaat27 → Declan Keenan • 4 years ago

| |

I think that was simply a response to a previous comment, suggesting atheists are lunatics.

#### rufusevison → Declan Keenan • 3 years ago

I have a feeling that lunatic is defined in terms of not sharing world views. No one shares mine completely, but I hide the differences sufficiently to allow me to fit in and classify as sane. We are all "potential lunatics" subject to the shifting paradigms of society. Enjoy.



Maggia81 → gatorcooken • 4 years ago

Is atheism not an ideology???

No. It is the denial of an unsupported god-claim. Atheism has no doctrine. It is simply a stance on one single question.

#### Tomas Zahradka → Maggia81 • 3 years ago

no - atheism is not ideology or belief. It's the exactly opposite and it is normal state of healthy mind. You don't have to be indoctrinated to be normal but you certainly have to be indoctrinated to become religious - most of the religious victims need routine weekly or even several times daily reconditioning to maintain the belief - and even though some are struggling and need constant personalized brainwashing by priests and "spiritual leaders".



Jeremy → Maggia81 • 4 years ago

I would no, it isn't really.

### **Dropofclearwqter** → Maggia81 • 3 years ago

Atheism is an 'ism' and a belief that there should be 'no belief'. Their dogma, in a few very vocal practitioners, is to denounce other 'ism's' that don't believe as they do.

Oh' and they are just as indoctrinated as those who believe in God. They spout the same vitriol as the atheists that have come before, and they read from the same playbook from their chosen media; be it the more renowned atheist books, seminars, t.v. broadcasts, chat rooms or online blogs. These are their bible sources.

#### donnaat27 → Dropofclearwqter • 3 years ago

That's a bit of a generalisation. I simply don't believe but did until my kids taught

me otnerwise. I certainly don't spout vitriol or indoctrinate my kids,  $\angle$  don't believe and one is more agnostic. They were all introduced to our house bible and told the stories BUT after each story or movie we discussed and they themselves came up with thoughts such as the parting of the sea (for example) would in reality have been a precursor to a tsunami, we have frogs etc falling from the skies nowadays but we know why it happens They were taught critical thinking skills and used them.

#### Dropofclearwqter → donnaat27 • 3 years ago

so you learned from your kids as your bible source. Just because something can occur naturally (frogs from sky) doesn't make the biblical account untrue. The story of Moses has a succession of predicted plagues and punishments presented to the Pharaoh before we had Doplar to predict weather phenomena.

#### Nosipho → Dropofclearwqter • 2 years ago

She learnt from her children that there are different views. Her children are not her bible source, they are the smart source that taught her the bravery of questioning the bible. They found ways to make sense of the bible stories and understood them to not be meant literally or to have been misunderstood by hose who wrote and rewrote them.

I'd say atheists can be really annoying! I don't believe, btw... But people, who call themselves atheists spent too much time talking about God

#### donnaat27 → me d • 5 years ago

What rubbish! I home-school my 3, two happily went through college and are now at uni. In my case, it wasn't 'reactionary' at all but carefully considered and never about keeping them away from learning what the rest of the world is like, completely the opposite - being told the truth about what the world is like, how and why and how to deal with it all. It was always their choice (once they had the faculties to do so), all 3 tried school at some stage. HE kids contact with reality is often much clearer than mainstream kids as they aren't numbed by TV, pointless streams of home work, after school clubs and sports.

avoid the trolls in this string, they all went to school far to early (he said trollingly - is this correct grammatically?!)

No, it's not. You should have said "far too early".

where\_from\_here → Claire • 5 years ago

Thx for this, luckily my incorrect "to" was a typo rather than than error, so ego intact. what i meant to ask (answer not really required) was whether trollingly is correct. I see the troll is still at work at the end of this string!

The issue has drifted into home schooling, which is a diversion from too early schooling. Lets try to stay on subject - too early is based on good research, home schooling (also some good research) has a myriad of other issues attached.

45 ^ Reply • Share >

Joan Garcia → where\_from\_here • 4 years ago

I love "trollingly"!

36 ^ V • Reply • Share >

patti karnes \* where\_from\_here • 5 years ago

sadly your post is also grammatically incorrect. should read "too early" not "to early".

16 ^ V • Reply • Share >



**Guest** → where\_from\_here • 5 years ago

your post is also grammatically incorrect. should read "too early" not "to early" 7 ^ Peply • Share >

me d → donnaat27 • 5 years ago

Horse manure. You home "schooled" because you were afraid your programming wouldn't take if your kids had other influences to counteact your propaganda. Admit it.

22 A V • Reply • Share >

donnaat27 → me d • 5 years ago

What 'programming would that be? The kids happiness is my only agenda, one studies philosophy, one robotic engineering and the 13 yr old is about to take GCSEs and hasn't got a clue what he wants to be yet, although secretly I believe 'superhero' is still top of his list. They are all atheists (I was the last to be), 2 are vegetarians (I most definitely am not). One has a tattoo, 2 don't;2 have piercings, one doesn't. The list of our familial differences goes on. They are completely their own people and I've only ever taught them critical thinking skills to be able to properly evaluate everything before them.

Load more comments

#### conversion to ...

5 comments • 2 months ago

Beatrice Morrow — That's too bad--christianity has caused more deaths to non-christians, ever !!! In fact ...

### Rare mineral discovered in plants for first time

2 comments • 3 months ago

caseystanta — Thank you for your publication. We have heard nothing about it here in the USA.

#### behind ...

4 comments • 3 months ago

Paul Lovatt Smith — Having had a career in the oil industry and also being a smallholder who ...

### Potassium gives perovskite-based solar cells an efficiency boost

2 comments • 2 months ago

jerryinmd — Many perovskites are lead based materials. Were these studies done with lead based ...

## Published

## 24 Sep 2013

# Image

"Back to School". Homepage banner image by Woodley Wonderworks via Flickr

Credit: Nick Page from Flickr.



## Share

7749	reddit 55.3K	486	2274	1248K				
	7749	7749 reddit 55.3K	7749 reddit 55.3K 486	7749 reddit 55.3K 486 2274				

# Places

Faculty of Education

School of the Humanities and Social Sciences

## Further links

David Whitebread's research on The Importance Of Play

A blog post by David Whitebread about school starting age

## Research Horizons





Download issue 35 of Research Horizons.

# Sign up to receive our Research Horizons email

The termly *Research Horizons* email lets you know when the latest issue of the University of Cambridge's research magazine is available to read online. Enter your name and email address below and select 'Subscribe' to sign up.

Your name

Your email address

#### Subscribe

The University of Cambridge will use your name and email address to send you our termly Research Horizons email. We are committed to protecting your personal information and being transparent about what information we hold. Please read our email privacy notice for details.