HOW WORLDBUILDING IN MINECRAFT MAKES STUDENTS BETTER CREATIVE WRITERS

What if, instead of simply imagining the settings for their stories, your pupils were able to create them? Teacher **Chris Waterworth** explains what happened when he and his pupils used Minecraft to design, build and explore Willy Wonka's chocolate factory, and write their own story about the mischief made inside.

With the announcement of Microsoft's purchase of MinecraftEdu, and the upcoming release of its expanded education edition, it's clear this addictive game is going to be around much longer. Many colleagues I've met have baulked at the idea of using what is ultimately a video game in the classroom, but after watching how focused the children playing it are, we've got to tap into that engagement, haven't we? Of course we have!

I'm lucky to have a seven-year-old son at home who has started this journey with me, and, together, we've come up with some super ideas for how we could use Minecraft in school. With his guidance, I managed to survive my first night on survival mode, am now the proud owner of several diamonds, and have crafted myself a diamond sword (my son was very jealous), although I did unfortunately die when lava fell on my head—'don't mine vertically' is the lesson there.

Of course, if used without purpose, the game can be a flash in the pan—a gimmick, fun at first but with no real function. We need to keep this pitfall at the forefront of our minds when choosing the technology and applications for our classrooms. They need to be engaging, but have a true academic impact.

So can we use Minecraft in our classrooms to improve learning outcomes? It was something I was very interested to find out. For this project, I decided to see if using Minecraft could engage the reluctant writers in my class and inspire an enthusiasm for storytelling. I asked the children if they were up for it—a resounding 'Yes!' came from every corner of the classroom.

I took the plunge with my own son to learn the basics and I've never looked back since. The interesting thing about using Minecraft is that nearly every child in my class knew how to use it, so no sessions were spent learning how to use the application. It really is simple to get to grips with, and you'll soon be building your very own house, mining for diamonds and beating off Creepers and Zombies with your iron sword.

SETTING UP YOUR VIRTUAL WORLD

MinecraftEdu is relatively simple to set up in school. You need to purchase a server licence and then individual licences for each computer it will be used on. We opted to buy a licence for every other computer and allow the children to work in pairs.

All the information you will ever need is on **services.minecraftedu.com/wiki**. Ask your network team in school or your technicians to give you hand setting the system up. You may find they're as excited as the children to get this up and running!

As the server is hosted in your school, you know it will be safe for the children to use, as the outside world cannot get in. Run through a few e-safety rules with your class regarding respecting other people's designs, and how to give structured feedback and help – especially with TNT around (disable it before you begin!). Minecraft can be a good starting point to a conversation with the children about how to be good digital citizens.

❝ THIS FEEDBACK FROM OTHER CHILDREN (PEER ASSESSMENT) IS A GREAT WAY FOR CHILDREN TO TAKE CHARGE OF THEIR OWN LEARNING AND ALLOW THEM TO THINK AND TALK ABOUT THEIR WORK AWAY FROM THE CLASSROOM.

Try to have a place where the children can talk about their designs when they are outside school. We used Edmodo for screenshots and discussion, as it is a platform the children were used to using. This feedback from other children (peer assessment) is a great way for children to take charge of their own learning and allow them to think and talk about their work away from the classroom.

Online collaboration is a great way to get children to push each other forward with their projects and to learn from each other. I found them sharing screenshots, video links, and giving out advice on how to create roofs, sliding doors and much more. Our Edmodo site began to look like a Minecraft wiki page that was packed with information from almost every child. You could feel the enthusiasm for the project just by seeing the pages fill up with detailed information.

CREATING A WORLD FOR WRITING

Getting engaged with a great book is, in my experience, the first step to enabling the children to write creatively. One important part of the writing process is actually getting the children *into* the world of the book. By doing this, the children become experts and have a wealth of things to write about when asked.

We started this term with one of my favourite books of all time—Roald Dahl's *Charlie and the Chocolate Factory*. If you've never taught a class of children using this book, you need to and quick; the possibilities for writing, drama, art and even computing are endless! Here's my topic plan to get you started.

After reading the first few chapters of the book and exploring characters using drama and role-play, we arrived at the chocolate factory. I told the children that there was a chapter missing from the book – the infamous 'lost chapter' that was never published. We were going to write our own version by creating a character, a chocolate bar or sweet, and a room in which the chapter would take place.

When I told the children we were going to use Minecraft to build our own chocolate factories, they went wild. They wouldn't stop talking about it. Engaged? I think so! They'd bought into the challenge and, after calming them down, I explained how it would help them write. I talked

about writing in detail and how we could use the rooms we built to inspire our stories. I told the children they needed to plan their rooms before they begun mining for blocks.

This planning phase proved a masterstroke, as it saved plenty of time when it came to using the technology in the classroom. The children had a clearer idea of what they were going to build when presented with the Minecraft world. You may think that I was stunting their creativity by not letting them fail while creating the room, but I believe going in blind can waste valuable time in the classroom. Giving them a clear focus enabled me to maximise the time the children had to build then write and edit their work.

The beauty of using MinecraftEdu is that the whole class can collaborate on one project in real time. I could literally see the chocolate factory being constructed around me, with corridors, pipes, windows, chimneys, strange machines and even the odd Oompa Loompa in chocolate rooms—made from blocks of course. I was blown away at the level of detail that the children had included in their designs. Some even used a type of block called 'redstone' to make their machines move and work. This use of redstone really got me thinking. Could we actually build a working machine in the factory? One for a future electronics lesson maybe.

WAS THE EFFORT WORTH IT?

Could I have just asked the children to use pen and paper to design a plan of their chocolate room? Yes—I've done that in the past, and it's worked well. But using Minecraft took this to another level. The children

could talk much more confidently about each aspect of their 'inventing rooms', because Minecraft allowed them to physically walk through it.

Yes, pen, paper and colouring pencils can be effective, but I have never seen a class more engaged in creating and then writing until I used Minecraft to support their learning. And that's the key: the engagement factor. The children relished the opportunity to be the experts in the classroom, a world where they aren't usually. I worked alongside them, designing my own room in our class chocolate factory, and I remember thinking, 'This is why I became a teacher'. The classroom was alive with talk of machines and chocolate, and listening to their explanations gave me hope that this piece of writing could be a cracker.

Now here's where good practice meets technology. One mistake people often make when using technology is to forget everything that they know is good in the first place—technology and the quality teaching we deliver every day should go hand in hand. After all, the outcome of this project is to write, not to build a 3D digital chocolate factory. I merely used the technology to enhance the children's writing.

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I wrote my own lost chapter based on the chocolate room I had built, then analysed it with the children and picked out as a class what made it engaging to the reader. We identified a variety of language, sentences and punctuation, and then drafted out a structure for our writing. This is a good approach I have always used and something I'm not about to stop using anytime soon, even if I am using the technology to supplement it.

As a class, we played around with language, created some effective sentences, and looked at speech and how it moves a story on. The writing skills still needed to be taught, but we now had so much more to write about. I found the children were asking for more adventurous language to describe their machines and extending their sentences because there was so much they wanted to say!

WHAT WAS THE OUTCOME?

Before we began to write, I fired up the server again and allowed the children to explore each other's room and to ask questions about the chapter they were about to write. What sweet or chocolate was made in that room? What was their new character like? How did he or she get into trouble? Because of their virtually crafted world, the children could confidently talk about their chapter and what happened. They knew where the characters entered, what they saw, whereabouts in the room the machine was and how their characters got into mischief – all because of Minecraft. They had built their setting and could describe every inch, or block, of it.

After this, the children sat down and wrote. And they wrote and they wrote. They wrote for two sessions straight without much prompting or encouragement from me. The level of detail in their writing was stunning. I could have picked up any piece of writing and matched it to the corresponding Minecraft room without the children being there.

Once the children had finished their chapter, we went through the editing process and published our writing online. I wanted to make sure all the children's hard work in Minecraft was appreciated and shared, so we illustrated our writing with screenshots of their creations.

HOW ELSE COULD WE USE MINECRAFT?

There are plenty of opportunities to use Minecraft in other lessons. In science, for example, it could be a great way for children to learn how to plan and carry out investigations. Which is the quickest pickaxe to use for mining a wall of cobblestone block? How many blocks of iron ore does it take to break a wooden pickaxe? These might not seem like terribly important questions, but the children are following a line of enquiry and using the investigative skills they would normally use in the classroom during science sessions—just with more engagement!

For example: how do we plan a fair test? When planning their experiments, the children will still need a list of variables to keep fair, things to measure and results to analyse, but they're using Minecraft as the vehicle. You can find out more about the success of these virtual experiments in my article in volume 6.1 of Creative Teaching & Learning, along with other ideas for embedding technology like Minecraft in science, maths and computing.[1]

BRINGING IMAGINARY WORLDS TO LIFE

The writing process didn't really change much during our *Charlie and the Chocolate Factory* sessions. We still planned, wrote and edited our lost chapters, but instead of simply imagining the settings in which our stories would take place, we were able to create them. Minecraft engaged the children from the start; it gave them so much to write about, because they could actually *see* the worlds they had created in their imaginations. We sometimes forget children cannot write creatively about things they've not experienced.

By using Minecraft, the children could build their own factories and use them as the basis and inspiration for their writing. The technology benefited all of my pupils, giving my reluctant writers something write about and allowing my confident writers to push their creative minds further.

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➜ References

1. Waterworth, C. (2015) How to embed technology in science and maths. Creative Teaching & Learning, vol. 6(1), pp30-36.

➜ Knowledge trails

1. A teacher's guide to Minecraft in the classroom – What is Minecraft, and how can the astounding creativity of this deceptively simple game be harnessed in the classroom? Ray Chambers explains.

library.teachingtimes.com/articles/teachers_guide_to_minecraft

2. Can you picture the music? – Every teacher is familiar with students claiming to lack inspiration. Philip Davis presents an infallible way to make that claim impossible – using images and sounds to generate ideas and inspire creativity.

library.teachingtimes.com/articles/can-you-picture-the-music