Hawa Patel – code.org/minecraft to introduce coding

Overview

Country: South Africa
Location: Vereeniging, Gauteng
Industry: Education

Software and services:
Microsoft Innovative Educator Expert program
Code.org/minecraft
Minecraft

Websites:
Code.org/minecraft

Microsoft Innovative Educator Experts advance the conversation about improving student outcomes through innovative uses of technology in teaching and learning.

Hawa Patel is the deputy principal at Roshnee Islamic School in Vereeniging, South Africa where she is also Head of Department for Computer Applications Technology, Information Teachnology and Business Studies. In addition to providing students at Roshnee Islamic School with skills for using technology, Hawa aims to get students excited about computers and programming as possible career choices. As a Microsoft Innovative Educator Expert, Hawa has enjoyed developing her own skills and having opportunities to share her talents with other teachers.

Hawa believes that successful people have a duty to sacrifice time to uplift humanity by giving back to the community and society – and she puts this belief into practice by offering free computer courses in Excel, Word and Access to community members. More recently, she has also offered free Hour of Code sessions to young people in her community as a way of introducing them to basic computer studies concepts as well as the structured way of thinking necessary to become a computer programmer.

As new trends and developments take place in the IT industry, Hawa adapts her classes to make sure that her learners stay up to date. For example Hawa has noted that "the industry has moved towards integrating Microsoft packages and analytics forms a big part of a company's IT industry. To keep her learners up to date with these trends, she makes sure that her learners are introduced to the power of analytics in software such as Access of Excel.

Hawa is a computer programmer herself and believes that "coding creates logical, creative and innovative thinkers". Hawa has found the Hour of Code to be a great way to introduce young people to Information Technology as a school subject and technology as a possible career path. She says, "With the advances in technology and gaming, learners can be introduced to programming as young as Grade 5 level (or even younger). Coding or programming teaches children to think logically, creatively and refines their problem solving abilities. We need to teach the way the way children learn!"

LEAD INNOVATION IN EDUCATION
Microsoft Innovative Educator Expert

Roshnee Islamic School

"'Coding' or as we say in South Africa, 'programming', can be initially challenging to introduce, but once the learners grasp the basic concepts they can design amazing programs that will build confidence and teach problem solving, creativity and logic at an early age."

"Technology can never replace the teacher however we need to teach the way learners learn. Gone are the days where we taught the traditional method - days of lecturing and learners using listening skills. Learners today are excited by their fancy gadgets and will spend hours learning if it involves using technology".

\- Hawa Patel
Roshnee Islamic School

For More Information

For more information about Microsoft in Education, visit: www.microsoft.com/education/ww/solutions/Pages/index.aspx

To find out about the Microsoft Innovative Educator Expert program, see: http://www.educatornetwork.com/Sites/Educators/Index

First Coding Experiences

Hawa was i ntroduced to coding when she was in grade eight and her father saw an advertisement in the newspaper offering a course in the programming language BASIC. After that initial introduction to coding, Hawa studied programming at university where she majored in COBOL Programming as well as BASIC and RPG. Later, after having children and looking to change career, Hawa completed a post-graduate certification through correspondence majoring in Computer Science and Technology, which led to her becoming a computer science teacher.

Whilst Hawa has an extensive knowledge of programming, she has found the www.code.org website to be very useful to introduce the basic concepts of computer science to children. Hawa first used the Star Wars tutorial materials with her son when he was in grade five and was amazed to see how much he enjoyed coding and how engaged he was by the activities. She also was delighted to see his sense of accomplishment when he received a certificate upon completion of the course. "This inspired me to start introducing coding to my Grade 8 learners as part of my computer literacy curriculum."

Beyond the Hour of Code

In the December 2015 school holidays, as part of her #MIEE commitment, Hawa ran some coding classes for primary school teachers and learners using the materials on www.code.org. Hawa comments, "I am very impressed with the nonprofit foundation website www.code.org as it shares plenty of useful online resources and apps for all ages."

In December 2016 Hawa built on these courses by providing an opportunity for interested students in grades four to eight an opportunity to do an 'Hour of Code' using the Minecraft themed tutorials at www.code.org/minecraft.

When asked about how she teaches coding at school Hawa said, "In the subject Information Technology (IT), before we teach Delphi, we teach programming visually using SCRATCH. This allows learners to drag and drop code to create a sequence of instructions for education and games. I love the excitement in the learners tone, the creativity and logical thinking in whatever project I assign them to create something using code especially when they use animation. This inspired me to introduce coding at Grade 9 level at school. In the subject Computer Applications Technology (CAT), we teach HTML programming using tag sheets to create exciting websites which include pictures, tables and links."

Learning through Minecraft

In addition to exposing her learners to coding or programming, Hawa also encourages her students to play computer games such as Minecraft, which allow them to use technology to explore and create new worlds. "I encourage my Grade 6 students to try Minecraft", says Patel, "Virtual Reality games have become popular with children who enjoy using technology and in the process they are also engaged in learning. This is also a visual way of teaching children and allowing themselves to express themselves. The virtual reality games have a visual way of imparting knowledge through play."