

Psychologists and experts in human computer interaction develop new app to support fussy eating in children

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Screenshot. Credit: Aston University

A team of researchers have developed a novel app for kids aimed at getting them to eat more healthily and try more vegetables.

Eating more vegetables is associated with the prevention of chronic illnesses in later life, but fewer than one in 10 children in the UK consume the recommended amounts, with many children rejecting vegetables on sight.

The app game, Vegetable Maths Masters is designed to expose children between the ages of 3 and 7 years old to vegetables via a maths gaming app where children can practise core maths skills developed in KS1. Depending on the child's age they can count with vegetables, draw numbers with vegetables, add/ subtract with vegetables and practise multiplication and division skills.

The team of psychologists from Aston, Loughborough and De Montfort Universities, in conjunction with the British Psychological Society, used focus groups and interviews with parents, children and teachers, to discuss their views on integrating strategies to support vegetable intake within an educational platform.

Dr. Claire Farrow, Aston University said: "We have developed an app which draws on psychological research to integrate different methods known to increase interest in vegetables and eagerness to try them.

"These include repeated exposure to real images of vegetables, token rewards for playing with vegetables and 'feeding' them to other children / characters.

"Social norms also influence food preferences, for example if child characters in the game like and enjoy eating vegetables, research suggests that children are more likely to try them."

To play the game, children choose either a child character, a teddy bear or a rabbit to play with and 'feed' them vegetables throughout the game. Their character is happy and animated when they eat vegetables and

gives positive verbal feedback. Children earn stars as they complete problems which can be traded for props to decorate an animated [vegetable](#), such as a carrot with glasses, a wig, shoes and clothes.

Parents get a say in the game too, by selecting which vegetables (from a choice of 10) that they want children to play with.

Dr. Farrow, Aston University added: "The game is based around [psychological research](#) which suggest that children become less weary of vegetables and more willing to taste them the more that they are repeatedly exposed to them.

"We will be conducting further research to explore the effectiveness of the app. Our preliminary evaluation is very promising and the results suggest that children who play the game are more likely to taste the vegetables that they play with in comparison to children who play with a control Maths app."

Professor Emerita Carol McGuinness, Chair of the British Psychological Society's Education and Public Engagement Board said: "The British Psychological Society welcomes the successful launch of Vegetable Maths Masters. This fun mobile technology game for young children combines the best psychological evidence on encouraging [children's](#) health eating habits with developing their early maths skills. We are delighted to be associated with funding the project and congratulate the design team for their innovative work."

More information: Vegetable Maths Masters is now available for free and can be downloaded on [iTunes](#) and [Android](#).

Provided by Aston University

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