

## A Kitchen That Talks? This One Teaches French



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This is the VOA Special English Technology Report.

A "talking kitchen" teaches students how to cook French and speak French. Researchers at New Castle University in the United Kingdom have developed the French Digital Kitchen. Professors Paul Seedhouse and Patrick Olivier led the project. Professor Seedhouse told us on Skype that it works like a satellite navigation system in a car.

PAUL SEEDHOUSE: "The sat nav speaks to you and it tells you, for example, to turn left. And if you turn left then it continues with the program. If, for example, you turn right, then it's a mistake, so it loops back and it gives you further instructions."

The kitchen equipment and tools use motion sensor technology similar to the Nintendo Wii game system. The sensors help a computer guide the students through instructions in French.

PAUL SEEDHOUSE: "The system can tell whether you've done what you were asked to do or not. So let's say, for example, the system tells you to take some butter and cut it with a knife, right? There's a sensor on the package containing the butter so it can tell where the butter's being moved. The sensor in the knife not only knows that the knife is moving, but it also knows what motion the knife is making. So it can detect whether the knife is slicing, whether it's scraping or what. And so it doesn't go on to the next stage of the program unless you've done what it senses you've done."

Students can ask the computer to repeat the instructions or translate them into English. There are vocabulary lessons before and after the cooking.

Professor Seedhouse became interested in the idea after he visited a talking kitchen designed for a different purpose.

PAUL SEEDHOUSE: "It was actually for communicating with people who suffer from dementia. And so, for example, it can speak to those people and it can tell them, for example, that they've left the oven on and they should switch the oven off."

He says the French Digital Kitchen turns the process of learning language into a real-life experience.

PAUL SEEDHOUSE: "Here you're taking it out of the classroom and you're actually using the language to produce something which you can eat at the end of it. It's very enjoyable."

But the idea -- known as task-based language learning -- required a few changes as the researchers were designing the system.

PAUL SEEDHOUSE: "For example, we've found that we put a sink full of water, right, and as soon as people have finished cooking with an instrument, they throw it in the water. And for us that's deadly because the digital sensors were immediately ruined by being in the water. Okay, so - so you have to take actions so that you don't have water in the sink and you tell people not to throw them in the sink."

The system could be available for sale by the end of twenty twelve. Adding the technology to a new kitchen could add an estimated ten to twenty percent to the building costs. The system could also be added to an existing kitchen.

The researchers are also developing portable versions. And the European Union has given them money to begin programs in six other languages, including English, Italian and Spanish.

And that's the VOA Special English Technology Report, written by June Simms. You can find a link to videos of the talking kitchen at [voaspecialenglish.com](http://voaspecialenglish.com). I'm Steve Ember.