Ready, steady, parlez-vous français?

Kitchen developed at Newcastle talks in French to you whilst you cook

The French kitchen in the basement of the King George building can open up new ways of learning languages. Photography: Anne Paterson

In the basement of the King George building, language and computer science experts at Newcastle University have teamed up to develop a kitchen with a difference.

The French digital kitchen is aimed to promote language learning through new innovative technology. The kitchen uses motion sensors similar to those of a Nintendo Wii, which are attached to appliances and also found specially embedded into utensils such as spoons, potato peelers and knives.

The job of these sensors is to detect whether or not the instructions given in French have been completed accurately. The beauty of the scheme as Dr Anne Preston, a research associate for the project, puts it, is that “it is not like listening to a tape recording, it responds to you”.

The digital kitchen has been designed in such a way that it can detect various types of movement from scooping to stirring and give corrections if necessary.

This remarkable technology comes from an idea in the Culture Lab at Newcastle University, led by Professor Patrick Olivier who created a similar kitchen to aid older people with dementia.

Professor Paul Seedhouse, who is involved in the language side of the kitchen, saw the potential in such a kitchen for language use and came together with Professor Olivier to create the final product.

The popularity of learning a modern language like French in Britain has diminished in recent years. According to statistics from the Joint Council for Qualifications, which represents the major exam bodies that serve England, Wales and Northern Ireland, the number of students studying French has significantly dropped in recent years.

In 2008 there were 202,136 pupils taking GCSE French; by 2011 this had fallen to 154,221 pupils. The same can be said for A-level French with 13,850 students in 2010 falling to 13,130 in 2011.

The kitchen is an attempt to combine learning, technology and lifestyle and to rekindle the love of language. The language aspect is equally as impressive as the technology side. The directors and creators of the kitchen hope that by taking a hands-on approach in a very practical area such as cooking, people will benefit from it.

The kitchen is based on the concept of Task Based Language Learning (TBLL). TBLL is a teaching method, which discovered that by doing a meaningful task or a task related to life situations, language learners become more confident and can develop a better fluency.

The digital kitchen contains four large computer screens on which users can watch tutorial videos with or without subtitles and look up vocabulary. English translations are also available if the user needs it by pressing a touch screen. In order to build upon what the user has learnt throughout the session, there is a short test available at the end.

The project is clearly deemed a very worthy cause and extremely useful, as it
continue development for another three years. This month sees the end of
the French kitchen and from December 1 onwards other languages such as
German, Spanish and even Finnish will begin.

These ideas are still a bit away from completion as researchers say there are
still improvements to be made, as this year was simply a trial. So far at
Newcastle University 20 people have tried the kitchen out and around 40
hours of data have been collected.

While the digital kitchen is not yet commercial or mainstream a portable
kitchen made up of a touchscreen with the appropriate software and some of
the utensils is available Professor Seedhouse also added that he encourages
any PhD students interested in the project or the other areas to get involved
with the concept of the portable kitchen.