Study may have a say on Speech

By Elliot Ferguson/The Whig-Standard

Ewen MacDonald, who is now an associate professor at the Technical University of Denmark, co-authored a study of the speech development of two- and four-year-old children.

The results of the study could lay the groundwork for better understanding of how speech develops, leading to the development of new speech therapy methods.

The study was completed with Queen’s psychology professor Kevin Munhall and assistant professor Elizabeth Johnson from the University of Toronto psychology department.

The study showed that, like adults, four-year-old children monitor their own voice and alter the sounds of the words they make.

What was surprising was that two-year-old children do not alter their speech according to what they hear.

“‘It’s always been assumed that this feedback is being used at all stages of speech development,” MacDonald said in a telephone interview Thursday morning from his office at the university in Lyngby, a suburb of the Danish capital, Copenhagen.

“Now that assumption is going to have to be revised.”

The study involved filtering the participant’s speech so that what they were hearing was not what they were saying.

For example, when participants said the word “bed” their speech was filtered and what they heard was the word “bad.”

After a few times hearing this, adults and the older children taking part in the study adjusted their speech by changing what they said to a word closer to “bid” because that sound, when filtered, sounded like bed.

The two-year-old children did not alter their speech.

MacDonald said the results could mean the younger children have the ability to monitor and adjust their speech but don’t always use it.

Or it could mean they rely more on feedback from adults to determine if their speech correct. Parents of caregivers who repeat words back to the children may be helping them to judge the accuracy of their speech, MacDonald said. Read Whig Standard Article online