

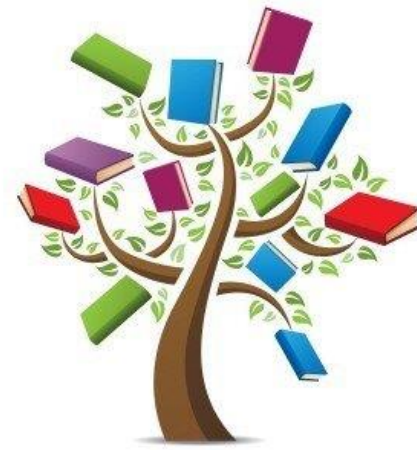
### Background:

- Morphology is about morphemes, the parts of words that convey meaning for example, the word 'unbreakable' includes three morphemes: un, break and able
- This project sought to understand how children, adolescents and adults process morphemes in words during word reading



### What was done?

- Participants were 50 children (7-9 years), 37 younger adolescents (12-13 years), 36 older adolescents (16-17 years) and 31 adults
- Participants saw novel words and real words on a computer screen
  - 30 pseudomorphemic nonwords (a real stem combined with a real suffix e.g. earist)
  - 30 control nonwords (e.g. earilt)
  - 30 morphologically complex words
  - 30 monomorphemic words
- Their task was to decide as quickly as possible whether or not it was a real word (a lexical decision task)



Picture source: Town Field Primary School



### What was found?

- Accuracy was lower for pseudomorphemic nonwords than control nonwords for all age groups
- This effect was greater in adults and older adolescents than in children and younger adolescents
- Adults and older adolescents were also slower to reject pseudomorphemic nonwords than control nonwords, but this effect was not found in the younger age groups



### What could this mean?

- All age groups showed sensitivity to the morphological structure of words during reading
- Younger adolescents behaved similarly to the children and older adolescents were more similar to the adults
- Therefore, important changes in morphological processing and word reading are happening in adolescence, somewhere between 12-13 and 16-17 years
- These changes could reflect the changes in the brain regions that are important for word reading and morphological processing that we see in adolescence
- A limitation of this study is that it is cross-sectional: groups of children of different ages were compared. Longitudinal research is needed which follows the same children as they develop through adolescence
- This will pinpoint when child-like word reading transitions into adult-like word reading
- This will pave the way for interventions that promote morphological processing and word reading