

Reading Development

- Matthew Effect
 - if you have someone who starts off interested in books they will be good at reading
 - more exposure to reading and literature
 - if you have someone who is not interested in reading will turn out to be a bad reader
 - does not get much reading
 - the differences are amplified over development
 - if you have instruction in reading (in grade one) the child who does not like reading will become better
 - the Matthew effect will diminish with formal instruction
 - the name comes from the bible
 - “the rich get richer, the poor get poorer”

Writing and spelling

- writing development
 - toddlers scribble, and turn the scribbles into letters around 5
 - exposure to holding a crayon will preexpose them to writing
 - Grade 1: using capitals correctly
 - Grade 2: spacing is regular
 - Spacing goes between words and not in words
- Spelling
 - Toddlers may know name (first thing they know how to spell)
 - 5 years: add some words, but may spell word using only one letter
 - Grade 1: still uses some invented spelling (phonetic-based)
 - Grade 2: traditional spellings are increasing
 - Grade 3: start using morphological knowledge
 - Such as “ed” to all past tense words

Reading Disorder

- dyslexia: below normal reading, based on IQ of the individual
 - based on the IQ that the person has, they are not reading at the same level
 - not extreme and related to non-dyslexic poor reader (degree)
 - multiple etiologies (genetic-based) and multiple manifestations
 - you cannot say that there is only one type of reading disorder (people have different manifestations of dyslexia)
 - dyslexia runs in families
 - but phonological awareness key difficulty, along with other contributions
 - some people say it's a spatial issue, but it is a phonological awareness
 - Gender
 - It is more commonly diagnosed in males

Special populations: Physical Impairments

Language in deaf populations

- can you be fully linguistic if you are learning a sign vs. a spoken language
- prelingually deaf, not hard-of-hearing OR OTITIS MEDIA
 - o >60DB = ATYPICAL LANG DEVELOPMENT; >90DB = INTERVENTION REQUIRED
- otitis media: middle ear infections
- Major issue: relative lack of native signers (10% of deaf individuals)
 - o Most learn oral language first
- Those who are taught oral language provide interesting data in 2 ways
 - o Home signs: linguistic isolates (they have no language so they try to make their own signs); words and grammar innate
 - o Late language acquisition
- Oral language is largely unsuccessful
 - o When you try to understand speech through lip reading it is 55% accuracy
 - o Those who lip read can also sign

Sign Language acquisition

- areas in the brain, where children who learn sign are more bi-lateral (right hemisphere is involved)
- ASL has a lexicon, phonology, and grammar
 - o That's why there is similar development over time
- Iconic signs have a greater presence, but spoken language has some iconic "Words"
 - o Iconic word "pow"
 - o More iconic words in SL
- Gestures are linguistic: evidence via grammar mistakes even with basic gestures like pointing (me vs. you)

Debate over early sign

- evidence that very basic markers may appear developmentally earlier
 - o if a sign is iconic, it sounds or looks exactly as it is
- one of the inspirations for baby signing
 - o easier to produce manually than orally
- however, very context bound imitations
 - o non-referential, imitative or adult)
- if only referential words are counted, advantage disappears
 - o this may be the "Easier to produce" idea and not the iconic theory of sign language

Oral developments – deaf children learning an oral language

- phonological
 - o babble manually and orally; but don't produce variegated/reduplicated

- lack coarticulation and many phoneme in later speech
- but, do comprehend phonological categories in sign (so do young hearing kids) and maintain them
- lexical and syntactic both delayed
 - no overhearing in lexical; overuse of simple structure due to classroom learning in syntactic (in a class room)
- communicative
 - before 18 months, no difference in joint attention episodes
 - after, slower increase in communicative episodes than hearing kids
- literacy: very poor; related to phonological awareness?; SES matters (if you are wealthy, you can send your child to a private class to learn)
 - they have poorer reading skills

Cochlear implants

- external device that picks up acoustic signals, the internal part is attached to the cochlear. The signals become electrical impulses that then goes to the brain
 - 12 months of age is the earliest implant in Canada
 - you have to be sure of what the damage is and you have to perform audiograms (diagnostic criteria cannot be met)
 - make sure the baby is fit for surgery
- most studies show improvements in oral speech and production (Dependent on age of implantation – earlier implantation, better the results)
- 2nd implantation (other ear) also dependent on the age of 1st implantation (difficulty hearing because it is going to the other side of the brain)
- scientific controversy: teach sign prior to implantation?
 - Should you not teach them language in the first months prior to implantation because they need a language
 - You shouldn't because they go from one language to another because it will "confuse the child"
- Political controversy:
 - The deaf community hates the cochlear implants. Cochlear implants are going to remove all the deafs. These "hearing parents" who are implanting their children are saying that deaf isn't good enough
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