

‘ELT for a Global World’



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Individual differences

A seminar course for TEFL students

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Special needs students: Dyslexia

Dyslexia

Definition of the International Dyslexia Association

“Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.” <http://eida.org/definition-of-dyslexia/>

Levels of description in the definition of dyslexia (Kormos & Smith, 2012)

- Biological
 - Neurological in origin
- Behavioural
 - Difficulties with accurate and/or fluent word recognition and poor spelling and decoding abilities
- Cognitive
 - Deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities
- Environmental
 - Effects of socio-economic and instructional factors

Possible linguistic problems experienced by dyslexics (Kormos & Smith, 2012)

- Problems in segmenting words into phonological units
- Problems with phoneme-grapheme correspondences
- Problems in word recognition
- Slow reading speed
- Difficulties in spelling
- Smaller range of vocabulary
- Slow word retrieval
- Articulation problems
- Problems in keeping verbal material in phonological short-term memory

Possible non-linguistic problems experienced by dyslexics (Kormos & Smith, 2012)

- Smaller span of working memory
- Problems with arithmetic and memorising multiplication tables
- Difficulties with handwriting
- Gross motor-coordination problems
- Problems with sustained attention
- Difficulties with time-management and organising work
- Difficulties in automatising new skills

Dyslexia

- Complex learning difficulty/difference
 - Not just a “reading problem”
- Dimensional, not “all or nothing”
- Individual problem
 - Those affected might experience different symptoms to various degrees
- Difficulties caused by it also depend on the language/writing system to be acquired
 - Transparent orthographies are easier
- Often overlaps with other learning difficulties (e.g. dysgraphia, dyscalculia, ADHD, dyspraxia)

Theories explaining dyslexia

Phonological Deficit Hypothesis (Stanovich, 1988, Vellutino, 1979)

- Dyslexia is caused by an underlying phonological processing problem, i.e. impaired phonological awareness.
- Research supports decreased phonemic knowledge in dyslexics, the question is whether this is the only problem dyslexics have.
- This hypothesis plays a central role in remedial programs for dyslexics which aim to support the acquisition of sound-letter correspondences and develop phonological awareness.

Double Deficit Hypothesis (Wolf & Bowers, 1999)

- According to this theory, besides phonological awareness dyslexics also have naming speed deficits.
- This means that people with dyslexia take longer to name objects and this can also be related to word-finding difficulties.
- Thus, dyslexics need to receive training in the fluency of letter and word recognition (besides phonological awareness).

Magnocellular deficit hypothesis

(Stein, 2008)

- This theory relates to visual processing and visual tracking
 - There are two types of cells found in the neural tracts between the retina and the visual cortex: *magnocells* (large cells that code information about contrast and movement) and *parvocells* (smaller and code information about detail and colour)
 - Cooperation between these two systems enables the perception of a stationary image
- Stein (2008) provides evidence that the development of magnocellular neurones is impaired in children with dyslexia, thus suggesting that dyslexia is primarily a visual deficit

Cerebellar Deficit Hypothesis

(Fawcett and Nicolson, 2008)

- This theory refers to the role of the cerebellum in learning.
 - It is hypothesised that the cerebellum is responsible for procedural learning; thus, a cerebellar deficit should be responsible for the problems dyslexics experience in acquiring skills.
- Dyslexics often experience problems in the automatization of new skills; it takes longer for them to assimilate new information to the point of mastery, and they need a considerable amount of over-learning.

Ways of accommodating learners with dyslexia in the foreign language classroom 1. (Nijakowska et al., 2013)

- Use technological devices (e.g. computers, CD players, portable media players)
- Clarify or simplify written directions
- Present a small amount of work
- Block out extraneous stimuli (cover parts of page not used)
- Highlight essential information
- Provide additional practice activities
- Provide a glossary in content areas
- Develop reading guides (ask questions to help S focus)
- Use explicit teaching procedures

Ways of accommodating learners with dyslexia in the foreign language classroom 2. (Nijakowska et al., 2013)

- Provide students with a graphic organiser (something to fill in)
- Simultaneously combine verbal and visual information
- Repeat directions
- Maintain daily routines
- Provide a copy of lecture notes
- Use step-by-step instruction
- Write key points or words on the board
- Use balanced presentations and activities
- Use mnemonic instruction
- Emphasise daily review

Ways of accommodating learners with dyslexia in the foreign language classroom 3. (Nijakowska et al., 2013)

- Design hierarchical worksheets
- Change response mode (instead of insisting on handwritten answer, allow S to underline, circle, sort, etc.)
- Provide an outline of the lecture
- Encourage use of graphic organisers (visual formatting)
- Place students close to the teacher
- Encourage use of assignment books or calendars
- Reduce copying by including information or activities on handouts or worksheets
- Use cues to denote important items (asterisks or bullets can be used to mark essential items)

Ways of accommodating learners with dyslexia in the foreign language classroom 4. (Nijakowska et al., 2013)

- Allow use of instructional aids (e.g. letter and number strips)
- Display work samples
- Use peer-mediated learning (pairs of different ability should be set up)
- Encourage note sharing
- Use flexible work times
- Provide additional practice
- Use assignment substitutions or adjustments (oral report instead of written one or vice versa)

References

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