UNIT 4. LEARNING DISABILITIES IN WRITING

What are we going to learn in this unit?

- ✓ Which are the processes implied in writing?
- ✓ Which are the differences among handwriting, spelling and composition?
- ✓ Which are the components of the Model of the Composing Process proposed by Flower and Hayes?
- ✓ What is the difference between dysgraphia and poor writer?
- ✓ What can teachers do to help children with LD in writing?

Materials

✓ Graham, S., Harris, K.R. & McArthur, C. (2004). Writing Instruction. In B. Wong. *Learning about Learning Disabilities* (pp. 281-313). London: Academic Press.

Introduction

The writing process is complex and difficult. In fact, by comparison with all other academic activities, writing requires more basic skills than perhaps any other. Even during their earliest handwriting exercises, children must combine complex physical and cognitive processes to render letters precisely and fluidly. As writing tasks become more difficult, students must call on an increasingly wide range of skills not only to write legibly, logically, and in an organized way but also to invoke rules of grammar and syntax. This combination of requirements makes writing the most complex and difficult use of language.

From first grade on, children write nearly every day and they are asked to do more with this skill than with any other except reading. And as children progress through school, writing requirements — from homework assignments and class work to note-taking and tests — increase across the curriculum. Even newer high-stakes tests are moving towards requiring more answers in the form of short paragraphs and essays.

Like all learning problems, a writing disability can be devastating to a children's education and self-esteem and can dramatically limit what that child can achieve later in life. School requirements demand a high level of writing proficiency, and a child who struggles with an unrecognized writing disability will find it increasingly difficult to express its knowledge on many subjects, as the writing process itself will stand firmly in the way of learning.

Moreover, given the complexity of the writing process and the fact that it is the last language domain to develop in children, it should not be surprising that deficits in written expression can co-occur with LD in oral language, reading and mathematics.

1. Read the part called "Writing is critical to children´s success in school and beyond" and list the contributions of writing proposed by the author.

Writing processes

Despite problems with the definition of LD in writing, teachers must understand the academic skill deficits associated with writing.

A. HANDWRITING. It refers to automaticity in the retrieval and production of alphabet letters and the speed of sequential finger movements. It is related to letter production and legibility. Handwriting is more than a motor act, it is a planning activity that implies fine motor skills.

Children with LD in handwriting characteristically:
- ✓ write illegible letters.
- ✓ do not follow lines on paper.
- ✓ write too small or too large.
- ✓ write too light or too hard.
- ✓ grasp the pencil incorrectly.
- ✓ do not visually track writing.
- ✓ write letters or numbers backwards or upside down.
- ✓ mixes capital and lower case letters inappropriately.

B. SPELLING. Spelling reflects two processes, one involving phonological processing at a sublexical level (phonological route) and another representing an orthographic store (lexical route). LDs in spelling processes are often called "dysgraphia". As in the case of other LDs, the problem arises even though children do not have low IQs, sensory deficits, cognitive or language skills, poor schooling or emotional problems. In short, there is no reason that can explain the difficulties.

Research indicates the presence of three types of spelling difficulties in the same way that they were discussed in the unit about dyslexia. There is the **phonological dysgraphia, which is consired** when children have problems in the development of phonological route, and therefore in the domain of phoneme-grapheme conversion rules. This means a greater difficulty to write new words and pseudowords.

Another type is the **surface dysgraphia,** which is characterized by problems to establish the lexical route. In fact, children make numerous spelling errors (such as *ada* instead of *hada*; *zanaoria* instead of *zanahoria*...) and have problems to discriminate homophones (e.g., *baca* vs *vaca*) and pseudo-homophones (*árbol* vs *árvol*). This type is also called dysorthographia.

However, deficits in both routes are more often, since they are dependent procedures. This type of difficulty is called **mixed dysgraphia**.

Children with LD in spelling characteristically:
- ✓ spell phonetically and cannot remember patterns.
- ✓ spell words differently in the same document (Divorce, for example, may appear as devoice, devocie or devoeace, whereas in Spanish, the verb *haber* could be written as *aber* or *a ver*, for example.)
- ✓ reverse letters in spelling.
- ✓ make omissions, substitutions...
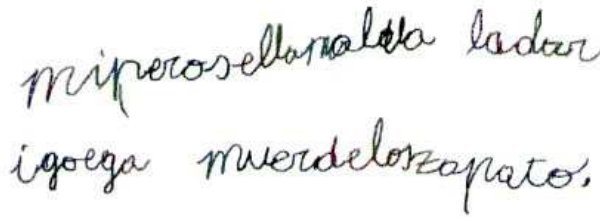- ✓ merge words.

2. Observe these written samples and analyze the problems showed by the child (handwriting and/or spelling).

Sample 1
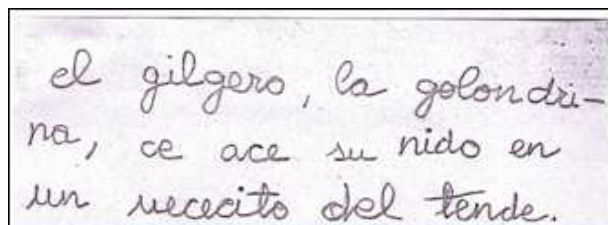
(Transcription: el jilguero, la golondrina, que hace su nido en un huequecito del tejado.)

Sample 2

(Transcription: mi perro se llama Lua, ladra y juega, muerde los zapatos.)

3. Create an example case of phonological dysgraphia and another example case of surface dysgraphia (remember to include IQ and PC in different tasks).

C. COMPOSITION. We will study the **Model of the Composing Process proposed by Flower and Hayes (1983)** to understand the composition processes.

According to Hayes and Flower (1983), writing is best understood as a set of distinctive thinking processes which writers orchestrate or organize during the act of composing. This model represented a major departure from the traditional paradigm of stages in which the major units of analysis are stages of completion which reflect the growth of a written product, and are organized in a linear sequence or structure. In contrast, Hayes and Flower propose that writing is structured in different and interrelated processes.

The act of writing involves three major elements which are reflected in the three units of the model: the task environment, the writer's long-term memory, and the writing processes. The task environment includes everything beyond the writer that influences the writing task. The writing assignment-topic, audience, the writer's motivation, and the growing text itself are examples of task environment.

The second element is the writer's long-term memory in which the writer has stored knowledge, not only in reference to the topic, but also the audience, written language knowledge and various writing plans. The writer's long-term memory, which can exist in the mind as well as in outside resources such as books, is a storehouse of knowledge on the topic and audience, as well as knowledge on writing plans and problem representations. Sometimes a single cue in an assignment, such as "write a persuasive..." can let a writer tap a stored representation of a problem and bring a whole raft of writing plans into play. Unlike short-term memory, which is our active processing capacity or conscious attention, long-term memory is a relatively stable entity and has its own internal organization of information.

The third element in this model contains writing processes themselves, specifically the cognitive processes of Planning, Translating, and Reviewing, which are under the control of a Monitor.

Planning

People often think of planning as the act of figuring out how to get from here to there, i.e., making a detailed plan. But this model uses the term in a much broader sense. In the planning process writers form an internal representation of the knowledge that will be used in writing. This internal representation is likely to be more abstract than the writer's prose representation will eventually be. For example, a whole network of ideas might be represented by a single key word. Furthermore, this representation of one's knowledge will not necessarily be made in written language, but could be held as a visual or perceptual code, e.g., as a fleeting image that the writer must then capture in words. Planning, or the act of building this internal representation, involves a number of sub-processes. The most obvious is the act of generating ideas, which includes retrieving relevant information from long-term memory. Sometimes this information is so well developed and organized in memory that the writer is essentially generating standard written English. At other times, one may generate only fragmentary, unconnected, even contradictory thoughts, like the pieces of a poem that hasn't yet taken shape.

When the structure of ideas in the writer's memory is already not adequately adapted to the current task, the sub-process of organizing takes on the job of helping the writer make meaning, that is, give a meaningful structure to his/her ideas. The process of organizing appears to play an important role in creative thinking and discovery since it is capable of grouping ideas and forming new concepts. More specifically, the organizing process allows the writer to identify categories, to search for subordinate ideas which develop a current topic, and to search for superordinate ideas which include or subsume the current topic. At another level, the process of organizing also attends to more strictly textual decisions about the presentation and ordering of the text. That is, writers identify first or last topics, important ideas, and presentation patterns. However, organizing is much more than merely ordering points. And it seems clear that all decisions and plans for reaching the audience affect the process of organizing ideas at all levels, because it is often guided by major goals established during the powerful process of goal-setting.

Goal-setting is indeed a third, little-studied but major, aspect of the planning process. The most important thing about writing goals is the fact that they are created by the writer. Although some well-learned plans and goals may be drawn intact from long-term memory, most of the writer's goals are generated, developed, and revised by the same processes that generate and organize new ideas. And these processes go on throughout composing. Just as goals lead a writer to generate ideas, those ideas lead to new, more complex goals which can then integrate content and purpose.

Translating

This is essentially the process of putting ideas into visible language. The information generated in planning may be represented by using written language. a variety of symbol systems other than language, such as imagery or kinetic sensations. So the writer's task is to translate a meaning, which may be embodied in key words and organized in a complex network of relationships, into a linear piece of written language.

The process of translating requires the writer to juggle all the special demands of written language(from generic and formal demands through syntactic and lexical ones down to the motor tasks of forming letters). For children and inexperienced writers, this

extra burden may overwhelm the limited capacity of short-term memory. If the writer must devote conscious attention to demands such as spelling and grammar, the task of translating can interfere with the more global process of planning what one wants to say. Or one can simply ignore some of the constraints of written language. One path produces poor or local planning, the other produces errors, and both lead to a situation that is frustrating for the writer .

In some of the most exciting and extensive pieces of research in this area, Marlene Scardamalia and Carl Bereiter have looked at the ways children cope with the cognitive demands of writing. Well-learned skills, such as sentence construction, tend to become automatic and lost to consciousness. Because so little of the writing process is automatic for children, they must devote conscious attention to a variety of individual thinking tasks which adults perform quickly and automatically. Such studies, which trace the development of a given skill over several age groups, can show us the hidden components of an adult process as well as they show us how children learn. For example, these studies have been able to distinguish children's ability to handle conceptual complexity from their ability to handle syntactic complexity; that is, they demonstrate the difference between seeing complex relationships and translating them into an appropriate language. In another series of studies, Bereiter and Scardamalia showed how children learn to handle the translation process by adapting, and eventually abandoning, the discourse conventions of conversation.

Reviewing

The goal of this process is to improve the quality of the text produced during the translation process. This process depends on two sub-processes: reading and editing until the writer gets the final version of text. Reviewing itself may be a conscious process in which writers choose to read what they have written either as a springboard to further translating or with an eye to evaluating and/or revising the text systematically. These periods of planned reviewing frequently lead to new cycles of planning and translating. However, the reviewing process can also occur as an unplanned action triggered by an evaluation of either the text or one's own planning (that is, people revise written as well as unwritten thoughts or statements).

The Monitor

As writers compose, they also monitor their current process and progress. The monitor functions as a writing strategist which determines when the writer moves from one process to the next. For example, it determines how long a writer will continue generating ideas before attempting to write prose. This choice is determined both by the writer's goals and by individual writing habits or styles. As an example of varied composing styles, writers appear to range from those who try to move to polished prose as quickly as possible to those who choose to plan in detail the whole discourse before writing a word.

4. Make a diagram to explain this model
5. Think about your composition process, do you use all the processes proposed by the Flowers and Hayes´s model?

Some characteristics of children with LD in composition are:

- ✓ problems with grammar, syntax and organization.
- ✓ persistent problems with sentence structure (sentences may be incomplete or syntax may be incorrect or disassociated).
- ✓ some parts of a well-organized paragraph are missed (topic and supporting sentences, transitional sentences).
- ✓ writing skills demonstrate to be inconsistent with verbal abilities..
- ✓ the composition of short and/or simple essays even though they can verbalize more complex thoughts.
- ✓ the capability to verbalize the answers of a test tests but written answers are wrong, left blank, or incomplete.
- ✓ oral vocabulary is more complex than written vocabulary.
- ✓ technical errors in punctuation, capitalization, grammar, word usage, sentence structure, paragraph structure.
- ✓ the omission of words in sentences.
- ✓ poorly organized written pieces of work.
- ✓ few probabilities of editing pieces of work.
- ✓ willingness to avoid written work.

6. Observe this written sample and analyze the problems that the child shows regarding written composition.

Ahora escribe tú una redacción sobre este otro animal.
Debe tener al menos 50 palabras. Puedes referirte a:

- ¿Qué animal es?
- Cómo son las distintas partes de su cuerpo.
- En qué lugares crees que vive.
- Qué come.
- Si piensas que le gusta vivir solo o con otros de su especie.
- Qué cosas imaginas que le gustarán.
- Dónde lo has visto.
- Si te gusta este animal…
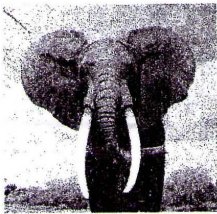
> Es un elefante.
> Algunas tienen arugas y otras no tan
> vien tienen colmillos.
> En la selva anoegieana en ese elefante
> le un sa para pasar en isla en ila.
> He gusta estar con animales desu especie
> y gor ma mapados
> en el zoo.
> Me gusta porque es fuerte

7. Other children have problems with writing but they are not children with LD in writing; they are poor writers. Taking into account what you know about a poor reader, could you describe an invented case of a poor writer?
8. Do you think poor writers would have problems only in one process or in all of them (handwriting, spelling and composition)?
9. Read part II and III of the Writing Instruction chapter and complete this chart

Characteristics of skilled writers	Characteristics of students with LD

10. Read part IV of the Writing Instruction chapter and complete this chart about Writing intervention.

General principles	Intervention for handwriting problems	Intervention for spelling problems	Intervention for composition problems

11. Regarding the intervention in spelling problems, propose two activities in order to improve the phonological route and another two activities to improve the lexical route

12. Observe these activities and explain the written processes that are implied, that is, handwriting, spelling (lexical or phonological route) or composition.

Activity A

Activity B

Activity C

Copia las siguientes oraciones

Ayer nos fuimos con mi padre

Estábamos en un bonito campo

Activity D

DICTADO DE SÍLABAS
Rodea con un círculo la sílaba de cada fila que dicte tu profe.

1. pra bar bra pla pa
2. pre bre per ple pel
3. pil pli pri pir pis
4. pos pol plo pro por
5. pur pru plu pul pus
6. mar fra pra bra bar

7. bre fre pre pel per
8. bri fri pri cri gri
9. fro bro pro dro tro
10. dru bru pru cru fru
11. pru blu bu bur bul
12. par pan pra pas pla