CHAPTER 14
THE PRACTICE OF DIAGNOSING LEARNING PROBLEMS

1. INTRODUCTION

A child with learning problems is touched in his/her total personal actualization (See Van Niekerk and Sonnekus, 1979) and, therefore, it is necessary to show how his/her actualization of becoming and learning relate to the nature of his/her learning effects, as the symptoms or manifestations of his/her learning problems.

It is not always possible to show which factors can be considered the cause of a learning problem and if they indeed play a causative role. More often, it is the case that the deficient actualization of becoming and learning appear simultaneously with learning problems and, thus, there is a correlation rather than cause. (This matter is discussed in a previous chapter). However, in its turn, a learning problem can give rise to problems of actualizing becoming, in connection with which there are symptoms of learning problems.

2. DISHARMONIOUS ACTUALIZATION OF BECOMING

A child with learning problems is in a disharmonious teaching situation, as explained in Chapter 11, and the particular meanings he/she attributes to his/her handicap are again sedimented in his/her actualization of learning. Thus, there is a continual interaction among the actualization of becoming and learning, on the one hand, and learning effects, on the other hand. "In researching emotional problems, the question that most often arises is whether reading disability is caused by emotional problems or whether reading disability results in emotional problems. It appears that each tends to contribute to the other ... " (Ekwall and Shanker [in English], 1985: 12).

Usually, a child with learning problems is convinced that he/she cannot handle his/her school work or any assignment. He/she shows feelings of frustration, impotence, inadequacy and aggression against the school and school subjects. In this respect, Ekwall and Shanker (1985: 318) say [in English] "Most students become

irritated when they fail to experience some success. Students with severe reading disability, however, have a tendency to become extremely irritable on meeting a task at which they are not immediately successful. Their moods may also change rapidly."

Affective lability is common and can result in a withdrawal into a unique world of fantasy and irreality, a refusal to do homework when it is connected with reading and writing, and even to truancy or vandalism--the possible deviant behaviors are multiple.

Thus, emotions and personal meanings determine a child's (also always an adult's) attitude and behavior, and even can aggravate his/her already existing distressful situation, of which a further consequence will be that the child will show an inadequate grasp of subject matter contents.

Hence, a child in a disharmonious teaching situation is restrained in actualizing his/her total person and, in itself, that creates a fertile ground for further restraints in his/her learning. Thus, a child, as it were, is in a vicious circle from which he/she cannot find an escape by him/herself. A defective learning effect is the symptom of inadequate personal actualization. This is discussed in the following division (Part V) of this book.

3. DEFICIENT LEARNING EFFECTS

3.1 Introduction

A child with learning problems progresses poorly with the instrumental skills of reading, spelling, writing and arithmetic, although there often then are correlated problems regarding subject matter contents as a result.

When a child's problem with a particular skill is described, this should be done in terms of his/her grade level, the requirements determined by the syllabus, as well as his/her individual abilities.

3.2 Deficient reading

Children with reading problems usually show a variety of reading techniques which arise more or less in all of them. For example, a child can read with the help of his/her finger, read word for word, repeat, insert, guess at, or sound out words.

A deficient understanding of the content is clear when a child reads with incorrect phrasing, poor intonation, ignores punctuation marks and cannot answer questions about the content.

There are different levels of reading passages which are ranked according to their degree of difficulty based on a particular child's accuracy of reading techniques and understanding, and which can help with the selection of suitable reading materials for each child. The independent level is defined by approximately 99% reading accuracy or word recognition, and approximately 90% accuracy in understanding, which means that a child can use this reading material for independent reading. The teaching level is defined by 95% reading accuracy and 75% accuracy in understanding, which means that this particular level of reading material can be used for reading instruction. The frustration level is defined by approximately 90% reading accuracy and approximately 50% accuracy of understanding, which means that this particular reading material is too difficult for the child, and also cannot be used for instruction before his/her skills have improved (Ekwall and Shanker, 1985: 368-369).

The criteria are explained by Betts (1946) and further clarified by Johnson and Kress (1965: 6, 10) in terms of behavioral characteristics which usually go together with them:

The level of independence:

* Rhythmic, expressive oral reading;
* accurate use of punctuation;
* silent reading is faster than oral reading;
* answers to questions are in language equivalent to that of the questioner;
* no sign of lip movements, use of fingers, head movements, reading aloud or anxiety regarding his/her assignments.

The instructional level:

* The same particulars.

The frustration level:

* Abnormally loud or soft voice;

* a-rhythmic or word for word reading aloud;
* absence of expression in oral reading;
* faulty use of punctuation;
* use of finger (by regularly pointing to each word);
* movement of lips or head;
* requests for help;
* lack of interest in selecting reading material;
* yawning or clearly fatigued; and
* refusal to continue.

Although other authors propose a few other levels of reading, they usually are based on intuitive feelings (Ekwall and Shanker, 1985: 370).

The more intelligent child usually is able to understand the content of the reading material even when mistakes are committed in his/her inaccurate reading. Albert Harris (Harris and Sipay, 1972: 42) states [in English] "as the nature of the reading task becomes more one of comprehension and interpretation, intelligence becomes a stronger determining factor."

Adequate eye-movements are extremely important for developing reading skills, and a deviation can greatly restrain this development. When there is any indication of a deviation in this regard (Ekwall and Shanker, 1985: 282-285), corrective means are required, either by means of glasses or eye exercises prescribed by an oculist or optometrist.

Faulty eye movements will be manifested in looking back to previous words or parts of a sentence, omitting or repeating words, pausing at the end of lines, the loss of orientation point during transcription, moving the head or keeping one's place with a finger, eyes held too close to the book and eyes which are red or watery.

The types of reading errors committed are multiple, and their appearances differ with individual children. Here is an attempt to indicate some of the most general types of errors and the accompanying perceptual disturbances:

* Possibly a child does not know the correct sound values of a written symbol or doesn't know how to pronounce vocal

combinations such as dipthongs, for example, "looi"* instead of "loei".
* Errors can arise at the beginning of words, for example, "been" instead of "leen"; or at the end of words, for example, "lenig" instead of "lening".
* Reversal of letters within a word can occur, for example, "bak" instead of "dak" (spatial orientation).
* Letter sequences can change, for example, "kruk" instead of "Kurk".
* Letters can be omitted, for example, "daai" instead of "draai", "braai" instead of "baai".
* Inadequate discrimination can lead to mis-readings, for example, "nooit" instead of "mooi".
* Anticipations can lead to substituting a word or part of a word, for example, "koud" instead of "koel".
* A child can show an inability to synthesize auditorily when he/she articulates a word.
* Most reading errors committed, in each case, are attributable to an inadequate analysis, and all of the above errors can be applied to this.

Standardized as well as informal tests are available in both languages (Afrikaans and English) to evaluate a child's reading skills. This is given attention in Chapter 14, Diagnostic Practice.

3.3 Writing deficiencies

Written work can be judged in terms of language use, gnostic-cognitive level (concrete or abstract, logical or unorganized, creative or stereotypic patterns of thinking) and content. In addition, the quality of handwriting ought to be judged in its completed form as well as during its execution. The grasp of the writing implement, as well as the position of the arm and body, and the nature of the writing action are responsible for the legibility of the writing. Any conspicuousness during the act of writing ought to be considered in the judgment. The ways in which corrections are made (spontaneously or after being pointed out) are important as manifestations of a child's spontaneous attending and ways of thinking. Deviations in written symbols can be attributed to motor inaccuracies, motor inhibitions, motor perseverations or inadequate visual-motor integration. Spacing of letters and words, and the

* All words in quotation marks are Afrikaans words.

slope of lines often are a conspicuous manifestation of inadequate motor control and use of space.

3.4 Spelling deficiencies

Spelling can be judged by independent work, transcriptions and dictation so that it can be determined if the discrepancies which might arise can be ascribed to an error in thinking or to a visual or auditory loss. The following are general spelling errors:

* Phonetic ways of spelling, for example, "toegmaak" instead of "toegemaak".
* Omissions such as "trug" instead of "terug".
* Faulty implementation of spelling rules such as open and closed letter groups, for example, "boome" instead of "bome"; doubling of consonants, for example, "kate" instead of "katte"; diminutive forms such as "karriekie" instead of "karretjie".

The aim of dictation is to determine if a child is able to link sounds to letter symbols, and if he/she is able to correctly remember auditorily. During transcriptions, the degree to which a child controls his/her work must be observed.

3.5 Arithmetic deficiencies

Here it is important to note computational fluency, number understanding and the ability to use abstract methods for solving problems, written as well as oral. Deficiencies can be manifested in counting with the fingers, counting and computational errors in ordinary notational forms or in abstract problem solving.

3.6 Manifestations of neurological "dysfunctions" and their implications for harmonizing teaching

A neurological dysfunction does not necessarily have to lead to a learning problem, but indeed can be the reason for problems with the instrumental skills. In this connection, Ekwall and Shanker (1985: 10) state [in English] that "The fact does remain that a certain proportion of disabled readers do have neurological difficulties but that neurological difficulties probably account for a small percentage of the actual causes of reading disability. However, ... the fact that a student is classified as having a minimal brain disfunction, does not help in the diagnosis of the child's

reading problems. A student ... must be taught to read regardless of how we label his or her condition."

Although there are no obvious indications of neurological problems, children with learning problems often show the so-called "soft signs" of neurological dysfunctioning: slight motor problems, clumsiness, visual-motor deficiencies, deviant or abnormal retardation in language acquisition, problems with reading and mastering arithmetic skills (Lerner, 1981: 61), impulsivity and hyperactivity (DSM III, 1980: 44). In the past, this group of children was known under a variety of labels: hyperkinetic syndrome, hyperactive child syndrome, minimal brain damage, minimal brain dysfunction, minimal cerebral dysfunction, (DSM III, 1980: 41), psychoneurological-dysfunctional, the child with specific learning handicaps or restraints, and the neurologically handicapped child (Du Toit, 1980: 59). Hyperactivity is manifested in gross motor activities such as excessive running or climbing. The child appears to be physically driven, and he/she finds it difficult to sit still. Older children and adolescents can be exceedingly restless and fidgety. The **quality** of the motor activities differentiates these children from children who are merely overactive, since the hyperactivity is characterized by haphazard, aimless and unorganized ways of doing things (DSM III, 1980: 41).

The label **child with attention deficits** is chosen because deficient attending is the most general and conspicuous characteristic of these children, and it continues to appear in adolescence while over-activity decreases (DSM III, 1980: 41).

The diagnostic criteria for the attention deficit syndrome **with hyperactivity** are:

*** Poor attending**

At least three of the following:

* Often does not complete tasks;
* often does not listen;
* attention is distractible;
* finds it difficult to concentrate on school work or tasks requiring sustained attention; and
* finds it difficult to maintain a play activity.

*** Impulsivity**

At least three of the following:

* Often acts without thinking;
* continually changes activities;
* finds it difficult to organize his work;
* needs lots of supervision;
* often talks out of turn in class; and
* finds it difficult to wait for his turn in play or group situations.

*** Hyperactivity**

At least two of the following:

* Runs and climbs excessively;
* finds it difficult to sit still; continually fidgeting;
* finds it difficult to remain seated;
* moves excessively in his sleep; and
* always on the move and appears driven.

*** Onset before the age of seven.**
*** Has persisted for at least six months.**
*** Not attributable to schizophrenia, affective lability, or mental retardation** (DSM III, 1980: 44).

The attention deficit syndrome without hyperactivity has the same characteristics as above except that the characteristics and restraints are less accentuated.

The most important question for the orthodidactician (educational psychologist) is how a child with attention deficits comes forward to meet and deal with learning assignments, how he/she proceeds to give meaning via learning, and how his/her "deficiency" can be contributory to the disharmonious dynamics of teaching.

The characteristic disturbances in attending, impulsivity and hyperactivity have the following implications for an attention deficit child's **actualization of learning:**

There is a direct relation between **bodiliness** and learning (Engelbrecht, 1970: 103). This relationship is disturbed by a child's hyperactivity and impulsivity so that his/her body, as a standpoint

in the world, and a situation from which he/she acquires a perspective and grasp of reality, loses its meaning. In this way, his/her own body is experienced as a body with deficiencies because it continually leaves him/her in the lurch. The possibility of completing the learning assignment thus does not acquire adequate form because the body between him/her and the task is unstable (Du Toit, 1980: 69). This impedes spatial orientation because matters such as size, distance and especially constancy, all directly related to perception, are not adequately actualized by his/her bodily involvement in the world.

Temporal orientation also occurs via the body. According to Kephart (1971: 54) temporal orientation initially is a motor activity which later is combined with auditory-visual perception. Understanding time is brought about by three aspects of motor activity: **simultaneity**, **rhythm** and **sequence**. Simultaneity is perceived when muscles move together, rhythm is perceived when muscles are moved alternately or repeatedly and sequence is perceived when movements occur as coordinated patterns. Because of his/her hyperactivity and impulsiveness, a child finds it difficult to be able to proceed to generalize from a number of perceptions, he/she does not acquire a fixed notion of time (Cruickshank, 1981: 175-180) with the consequence that problems such as figure-ground confusion and dissociation arise. The classroom as a learning space must be arranged in such a way that learning via bodiliness is optimized: smaller classrooms, providing individual cubicles and teaching within arm's length of the child (Cruickshank, 1981: 176-177). In this way, a child experiences that he/she acquires control of his/her body in space and his/her field of perception is restricted.

The **sensing**, as a mode of learning, of a child with attention deficits is restrained because his/her world is experienced as unstructured owing to his/her pathic unrest, and he/she continually confronts learning tasks subjectively. Consequently, there are figure-ground disturbances, dissociation and perseveration (Lerner, 1981: 63). His/her hyperactive behaviors can be interpreted as a desperate attempt to acquire a grip on reality by attending: his/her inability to selectively attend not only restrains his/her perceiving but also his/her feelings of intense frustration result in an enduring underlying anxiety (Du Toit, 1980: 73) and an attenuated experience of his/her self-esteem (Cruickshank, 1981: 179).

Perceiving, as a distantiated, objective act of learning directed to analyzing, ordering and synthesizing, as necessary steps in solving a problem, is actualized inadequately by a child with attention deficits. Penetrating to the essences of what is perceived is almost impossible for a child who experiences deficiencies in analyzing and synthesizing on an auditory and visual level. The consequences of an inability to perceive effectively, among others, are reversals, problems of sequence and problems with sound and word recognition (Cruickshank, 1981: 90-91).

The **act of thinking** is not actualized authentically, especially because of defective classifying, categorizing and ordering which ultimately gives rise to an inability to think abstractly (Du Toit, 1981: 75). Characteristic of an attention deficit child's inability to think is the fact that his/her language primarily functions on a concrete-visual level.

The modes of learning of **imagining** and **fantasizing** are not actualized adequately on a gnostic-cognitive level because a child with attention deficits finds it difficult to think in terms of the perspective of something or someone (Tansley and PanCkhurst, 1981: 118-119).

Remembering also is not adequately actualized by a child with attention deficits because he/she has problems with registering memory, sequencing and with the speed with which he/dhe recalls facts (Dumont, 1980: 160-161).

The reduction of learning materials, in particular, and curriculum planning, in general, do not take into account the diffuse grasp of reality and the particular ways of actualizing learning of the attention deficit child, as noted above. The demands of the amount of learning contents holds the possibility of disharmonizing the dynamics of teaching. If the stated problem (of a lesson) does not take into account such a child's inability to penetrate the sensory-experienced actualities, and merely directs a gnostic-cognitive appeal to the child, he/she will not be guided to penetrate what is immediately present, and he/she will experience an ever increasing gap in his/her knowledge. The result is a disharmonious lesson event in which the learning material gradually appears to be more fragmented and meaningless.

To harmonize the dynamics of teaching concerning a child with attention deficits, the integration of a detailed image of the actualization of learning of each child along with refined pedagogical essences is required (Du Toit, 1980: 83-84). Cruickshank (1981; 176) refers to the orthodidactition's task with respect to the **principle of individualization**: Children with attention deficits in no way are a homogeneous group--the degree of distractibility, as well as its nature might differ. For one child, the problem might be of a visual-motor nature, by another auditory-motor and by yet another tactual-motor and hyperkinesthetic, so the idea of a "group" of children with attention deficits often merely is hypothetical.

4. SYNTHESIS

The mutual interwovenness of deficient becoming and defective learning outcomes, as deviations with respect to specific symptoms, have come to the fore in the above discussion. The variety of ways of manifestation or symptoms of learning problems continually must be related to a child's total personal actualization and his/her co-constitution of the dynamics of educating and teaching, especially with respect to his/her **learning** role in these dynamics, and with special reference to his/her unfavorable functional activities in this regard.

Reading problems, writing deficiencies, spelling errors and erroneous computations, as deficient learning outcomes, on the one hand, and neural dysfunctions, poor concentration, hyperactivity and perceptual problems as the defective actualization of learning, on the other hand, must not be **isolated as symptoms** but rather be recognized as moments of the disharmonious dynamics of teaching to specify what the dysfunctional effect is on a child's actualization of learning, as such.

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