

## CHAPTER 12

### THE ORIGIN OF LEARNING PROBLEMS

#### 1. INTRODUCTION

It is not always possible to show what factors give rise to learning problems. Ekwall and Shanker say [in English] "there are many factors that seem to have a close relationship to reading disability but cannot be established as having direct causal relationships" (1985: 2). It also is not possible to exclude a single origin. "It should be stressed, however, that seldom is any child's reading disability a result of any single factor" (Ekwall and Shanker [in English], 1985: 23). Also, Jules Abrams (1970: 299) says [in English] "There is no single etiology for all learning disabilities. Rather, learning problems can be caused by any number of a multiplicity of factors all of which might be highly interrelated".

More often the deficient actualization of becoming and learning arise simultaneously with learning problems and thus there is mention of correlates of learning problems rather than causes. Balow (1971: 523) states [in English] that " ... while motor and perceptual skill weaknesses are frequently found in learning disabled pupils, there is great likelihood that these are most often simply concomitants without causal reference; thus the argument cannot depend upon assumed etiologies for learning disabilities". Also, Kirk et al. (1978) say that instead of giving too much attention to possible causes it is preferable to view these factors as correlates of a child's learning problem.

A child with a learning problem finds himself in a disharmonious teaching situation but also it is possible that particular constituents of teaching (the disharmonious **learning** and/or **teaching of contents**) can contribute to the origin of a learning problem. The following is a consideration of the defective actualization of learning (or disharmonious learning) as possibly giving rise to a learning problem.

#### 2. DEFECTIVE ACTUALIZATION OF LEARNING

##### 2.1 Introduction

Actualizing learning is an event that influences the quality of the learning outcome. When a child shows a deficiency in any of his learning proficiencies this can be attributed to a deficient actualization of them (Van Niekerk and Sonnekus, 1979: 10). In using this notion, a distinction is made between the inadequate or disharmonious actualization of the modes of learning, on the one hand, and the inadequate actualization of their respective modalities, on the other hand. In diagnosing a particular child's learning problem it is not always possible to make this distinction and it should be avoided since the distinguishable components mutually influence each other. An attempt to arbitrarily separate underlying causes also can lead to a segmentation of the problem. Rather, one should strive for an understanding of a child in his distressful situation as an integrated unity so he can be helped in the most effective way. The most accountable way of trying to understand is by continually changing focus from various perspectives as possible origins of the learning problem (see Van Niekerk and Sonnekus, 1979: 2-16).

However, recent literature indicates a skepticism about adequate perception as a prerequisite for acquiring learning proficiencies. Reid Lyon (1977: 564-572) says there is insufficient evidence that intact auditory perception is necessary for the adequate development of learning proficiencies; this holds equally for visual perception. On the other hand, some research has indicated a positive correlation between auditory (and possibly visual) perceptual development and future success in reading (Ekwall and Shanker, 1985: 297). The most acceptable procedure seems to be to take into account perceptual disturbances when they are related to a learning problem and to consider them in remediation or teaching.

What is increasingly met with more approval is to determine a child's cognitive learning style--his ways of thinking and acting--and the role this plays in influencing the learning outcome (Ekwall and Shanker, 1985: 359). Although there can be many types of inadequate individual learning styles, the **impulsive** style is the most general typification (Ekwall and Shanker, 1985: 359).

With reference to the above, the possibility can be posed that children with learning problems do not necessarily need to show deficiencies regarding the actualization of learning modalities but

rather that they have an inability to implement an adequate cognitive learning style in order to actualize their learning (see Kotze, 1985).

It seems, however, that the collective disharmonious actualization of the modes of learning and perceptual modalities, as well as the cognitive style that also plays a role can give rise to deficiencies in learning outcomes which will be interpreted as the symptom of a problem in the following chapter. Thus, it is necessary to have knowledge of all of the components of actualizing learning and how they can contribute to the origin of a learning problem. This topic is discussed next.

## **2.2 The disharmonious actualization of learning**

### **2.2.1 Introduction**

Although learning is actualized as a unitary activity different modes can be distinguished (see Sonnekus and Ferreira, 1979: 107-130) (once again emphasizing their inseparability), namely, attending, perceiving, thinking, visualizing, remembering and memorizing.\* Because learning is an individual activity it is obvious that it will differ from person to person and since there are so many factors that can influence and restrain it (see Lerner, 1981; Hallahan, Kauffman and Lloyd, 1985; and Ekwall and Shanker, (1985), it is possible that the modes of learning can be actualized inadequately. For each child with a learning problem it has to be determined on what level he actualizes his learning, viewed against the background of his age, intellectual abilities and the actualization of his becoming.

### **2.2.2 Disharmonious attending**

Attending is an accompanying or concomitant mode of learning (Sonnekus and Ferreira, 1979: 109-114) and is carried by a stable sensing. Lability leads to underactualized attending (see Van Niekerk, 1981, 24-27).

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\* In fact, according to Sonnekus and Ferreira, the modes of learning are sensing, attending, perceiving, thinking, imagining and fantasizing and remembering

Well-directed attending is necessary for acquiring information but there are various forms of deviancy in this respect. A child with scattered attending is easily influenced by what occurs around him while a child with a fluctuating attention span cannot direct himself to one thing at a time. Perseverations can manifest themselves when a child finds it difficult to change his actions or stream of thought and in this way, e.g., provides stereotypic responses to various appeals or is unable to control his writing movements and then, e.g., writes an "m" instead of an "n".

For a further discussion of the attention deficit disorder the reader is referred to the DSM III of the American Psychiatric Association. It also is discussed in Chapter 13 as a symptom of learning problems. At present the concept "attention deficit disorder" is used for a neurologically impeded, brain-damaged, brain-dysfunctional, hyperactive child, one with MBD (Minimum Brain Dysfunction) (see DSM III).

A child with defective attending finds it difficult to limit his attending to what is important. This leads to an inability to selectively focus and maintain it. What is relevant to the learning task thus eludes him. His sensitivity to visual, auditory and tactile sensory stimuli makes him excessively scattered.

Thus, the quality and stability of attending determines the quality of perceiving, thinking and remembering (see Van Niekerk, 1981: 24-27). Because of being scattered and impulsive a child with deficient attending shows an unwillingness and inability to remain involved with the learning content. His weakened intention to learn contributes to his not penetrating to the essence of the matter (see Van Niekerk, 1981: 28). His inability to master the learning task increases his hyperkinesis and a labile-pathic lived experience of his own bodiliness. His inability to selectively attend intensifies his inclination to be impulsive and scattered. Because of his disturbed attending a child with an attention deficit disorder has difficulty reliably perceiving reality.

### 2.2.3 Disharmonious perceiving

When a child has difficulty interpreting a perceived object it doesn't have meaning for him and doesn't lead to a concept that he can recognize as such everywhere. In this connection, Ekwall and Shanker (1985: 281) refer to **vision**, the ability to interpret

information by means of the eyes (visually) and to **sight**, the ability to see detail. Vision is a cognitive event and sight a mechanistic process. Thus, perception is the result of vision and sight.

"Perception is the end result of sight and vision. This is the output. Reading ability seems to be dependent not only on visual perception but also on auditory perception and tactual perception" [in English].

Among others, characteristic learning problems are dissociation where learning contents are not seen, heard or felt as a whole. Where there is difficulty selectively directing attention, particular visual and auditory aspects are difficult to distinguish from background data. A consequence of aimless and non-productive activities can be to disturb a child's ability to differentiate so that undifferentiated perceiving as a defective ability to distinguish, name and select results (see Du Toit, 1980: 61). Perceptual disturbances that lead to inadequate perception are discussed below.

#### **2.2.4 Disharmonious thinking**

Insight into a person's habitual manner of thinking can be acquired by an analysis of his conversations and written work and also by his performance in a test situation. A trial-and-error method or a way of acting directed to problem solving, therefore, are manifestations of his ways of thinking. Thinking can occur on different levels, e.g., logical and ordered in contrast to chaotic and unordered, concrete or abstract, clumsy and rigid or flexible and fluent, and stereotypic in contrast to creative, original and individual (Van Niekerk, 1986: 88-92). Also a child with an attention deficit disorder can find it difficult to structure and order a variety of sensory stimuli into a unity so that analyzing, synthesizing, schematizing, comparing and classifying can occur (see Du Toit, 1980: 71).

#### **2.2.5 Disharmonious visualizing**

It is only possible to form a thought-image or visualization from what has already been perceived sensorily (see Sonnekus and Ferreira, 1979: 122-126). The ability to visualize thus is clearly dependent on adequate remembering. Often a child with a spelling problem experiences problems in this regard.

#### **2.2.6 Disharmonious remembering or memorizing**

Here there is a distinction between memorizing or imprinting and remembering or recalling (Van Niekerk, 1986: 88). Thus, adequate memorizing is a precondition for adequate recalling and the quality of remembering is again determined by adequate attending. A child with a deficient attending will have particular difficulties with this. A distinction also can be made between short-term and long-term memory and it mostly is the case that children with learning problems experience difficulties here as well as with their ability to remember facts in relation to each other and in the correct order.

## 2.3 Inadequate actualization of sensory-motor modalities

### 2.3.1 Introduction

Since the proper actualization of the modalities of perception is related to the development of motor, tactile and kinesthetic experiences it is necessary that an orthodidactician have knowledge of this and how movement, perception and learning proficiencies are integrated (see Hallahan et al., 1985: 69-74).

### 2.3.2 Inadequate motor, tactile and kinesthetic experience

The body is a person's center of reference for space. A body scheme is the totality of knowledge regarding one's own bodily motor, tactile and kinesthetic movements (see Erwee, 1980: 56-59 and Hallahan, et al., 1985: 39-44). Motor activity includes all muscle movement and there is a distinction between gross motor movement (e.g., walking, running, jumping climbing, distinct arm and leg movements) and fine motor movement (e.g., moving separate fingers and the act of writing).

Tactile movement includes the sensation of touching which gives rise to knowledge of texture and temperature.

Kinesthetic refers to an awareness of one's own bodily movements and bodily position in space and thus it includes the ability to change position.

Laterality refers to an awareness of the two sides of the body. Knowledge of the body scheme is a precondition for developing body-knowledge or a **body-concept**--the cognitive knowledge of the body parts and their movements. On the other hand, **body-image** is the affective meaning that one has attributed to one's own

body (see Van Niekerk, 1982: 141-150). From the body scheme develops the ability to project this knowledge onto objects in space and to understand that objects have the same characteristics as the body does: sides, top and bottom, left and right, mobility, dimensionality, manipulability (see Erwee, 1980: 56-59). In this way, knowledge is developed of spatial position, orientation and relationship. It is here that sensory-motor coordination arises. What is perceived through the senses has to be coordinated with appropriate movements that simultaneously are carried out, e.g., clap hands; throw, catch or hit an object; balance on one foot. Failures here can be attributed to incorrectly estimating time or inappropriate bodily movements. Coordination mostly involves gross muscle movements.

On the other hand, sensory-motor integration embraces the interpretation of a perception in order to carry out an appropriate action, e.g., copying a pattern correctly. Estimating time does not play a role here. A failure in this case can be attributed to an erroneous interpretation or a faulty execution of the activity by means of a fine-motor act.

### **2.3.3 Inadequate visual-spatial perception**

#### **2.3.3.1 Form constancy**

A figure of the same type but in another surrounding, space, size, content or time ought to be recognized as such. A child with a problem in this regard will, e.g., have little success recognizing a typed "a", a written "a" and a capital "A" as symbols with the same meaning.

#### **2.3.3.2 Figure-ground perception**

This is the ability to recognize a particular form against a background of distractions, e.g., to be able to find a particular word in a written paragraph.

#### **2.3.3.3 Analysis-synthesis**

This is the ability to divide a unity into its sub-parts or to assemble a meaningful whole from parts. In most cases, a reading problem can be attributed to inadequate analysis or synthesis. A child with such a problem then will have great difficulty differentiating a whole

word into its letters or syllables, or uniting separate syllables into a word.

#### **2.3.3.4 Sequence**

This is the ability to recognize the logical spatial sequence of the parts of a whole. An inability in this regard can give rise to shifting the sequence of letters during reading and writing, e.g., "lap" can be written or read as "pla" or "pal".

#### **2.3.3.5 Discrimination**

This is the ability to differentiate among symbols that resemble each other such as a/e/o, m/n, v/w, h/k, etc. A deviation here will lead to substituting letters that look nearly the same during reading, e.g., "tan" instead of "ton", "now" instead of "mow", "wane" instead of "vane", and trouble reading or writing the word "peace".

#### **2.3.3.6 Spatial orientation**

Phenomena in written and read work such as the substitution of an "f" with a "j", a "b" with a "d", etc. is attributed to an inability to recognize a symbol in its correct orientation and to interpret it on a two-dimensional level. It is clear how the development of this ability progresses to a three-dimensional level and is a precondition for transferring it to a two-dimensional level.

#### **2.3.3.7 Memory**

This embraces the correct memory of a unity which can be reproduced in reading or writing. Inadequate memory can give rise to spelling errors such as "chaise" instead of "chase"; "thot" instead of "thought"; etc.

#### **2.3.3.8 Completion**

This is related to memory and is the ability to recognize and correctly reproduce an incomplete whole, e.g., recognizing "ca...ch" as "catch".

### **2.3.4 Inadequate auditory-vocal perception**



The same modalities of visual perception are applicable here as are relevant to sound. Form constancy and spatial orientation, however, are not applicable to auditory perception.

### **3. TEACHING DEFICIENCIES**

#### **3.1 Introduction**

In Chapter 11 (section 3) it was indicated that a teacher can teach ineffectively by making mistakes in selecting and reducing the learning contents, stating the lesson problem, systematically unlocking (presenting) the contents, determining skills, proficiencies and techniques, meaningfully verifying the effects of teaching and learning, the functionalizing aspect and the evaluation steps such that the learning contents are unlocked inadequately and it is not possible for a child to learn them effectively. Attention now is given to a teacher's inadequate participation in teaching in a lesson situation.

Above it was noted that learning problems are a disharmonious component in a child's self actualization of his learning initiative which result in disharmonious possessed experience and an underactualization of the modes of learning (Sonnekus, 1975: 80). Because of the complementary relation between teaching and learning (Van der Stoep, 1973: 25) it is possible that teaching problems can give rise to learning problems. Disharmony between teaching and learning, manifested as teaching and learning problems, results in lesson or content problems (Sonnekus, 1975: 80). The possibility of inadequacy in the disharmonious dynamics of teaching embraces the whole of the teaching event from which the teacher as a person cannot be eliminated (Meyer, 1982: 33). According to Van Dyk (1977: Chapter 6), a number of planning and performance functions constitute the task of a teacher in a lesson situation, and thus a functional analysis to disclose possible teaching deficiencies is a meaningful place to start to try to harmonize the dynamics of teaching.

#### **3.2 Inadequate reduction of contents**

When a teacher does not reduce the contents to their essential and absolutely necessary factual cores (elementals) that sharpen a child's insights and clarify relations, this can give rise to superficial, process-like learning, meaningless memorization and an attribution

of negative meaning to the contents so that they quickly fade away. A child can be disturbed affectively by being flooded with contents that show little structure or order and which he cannot grasp.

Dednam and Bouwer (1985: 44-45) indicate that a teacher errs when in reducing the contents he does not thoroughly take into account such matters as the syllabus content in order to avoid gaps in knowledge, leaves out of consideration the level of the pupils' learning, does not consider the possibilities of differentiation appropriate for the pupils, and acts injudiciously with respect to the society and environment in which the pupils grow up and within which the learning contents have to be meaningful.

### 3.3 Inadequately planned aims

The **teaching aim** is attuned to support a child to acquire learning contents on his way to proper adulthood (Landman, 1981: 4). Learning aims that do not serve a child to functionalize his acquired proficiencies and skills on continually higher levels really leave him defenseless in a world of demands. The formulation of a **learning aim** has to indicate what learning contents are going to be selected that will lead to an insight into and understanding of the lesson theme. The teacher can make a teaching mistake when, e.g., he selects contents that do not correspond with a child's learning abilities such as his abilities to make discriminations or his motor skills. The **instructional (lesson) aim** determines how the teacher will implement the learning aim. Vagueness regarding the methods he aims to use, the positions he is going to take with respect to the pupils and the learning contents and the examples he is going to implement can lead to the course of the lesson occurring haphazardly or the teacher falling into a drill pattern or stereotyped handbook method and the principles of the lesson contents then are not disclosed.

### 3.4 Inadequately planned lesson form

Regarding planning the form of a lesson, the teacher can contribute to negative learning experiences when his choice of a ground form is unaccountable. Thus, **conversation**, as a ground form, might be extremely confusing for a child who experiences difficulty with auditory figure-ground discrimination; or if instructions are not given clearly, the progress of a lesson with **assignment** as a lesson form might be uncertain and aimless. The **methodological**

**principles** as organizational procedures that the teacher uses during a lesson to bring home insights to the pupils by allowing them to work inductively or deductively also might confuse the pupils if he does not take into account the demands that they make. **Inductive** learning requires ordered contents while **deductive** learning requires a thorough command of the principles.

### **3.5 Inadequately designed lesson phases**

#### **3.5.1 Inadequately guided learning during actualizing foreknowledge**

When the new contents are not linked up with relevant foreknowledge, which serves as meaningful points of contact and basic insights, a child who already has a history of learning failures might have a negative emotional experience of the teacher and the contents and this can completely neutralize his readiness to learn. A teaching mistake in this respect occurs when a teacher does not determine the pupils' cognitive foreknowledge and functional skills beforehand (Dednam and Bouwer, 1985: 56).

#### **3.5.2 Inadequately guided learning during stating the problem**

Stating the problem is the focal point of a lesson and, as such, it is a precondition for formulating the lesson aim (Van der Stoep, 1973: 53). In so far as a child is learning adequately in his involvement in the course of a lesson, the meaning of the lesson contents is found in the problem the teacher has formulated. His learning intention is directed to solving the problem in terms of the teacher's presentation of a lesson and similar ones that might arise from the lesson. The teacher can dampen this learning intention when a problem is formulated that is irrelevant, vague, too difficult or too removed from a child's experiences which then confronts him with his ignorance and learning impotence. Because of his disturbed volitional and emotional life, a child with learning problems might experience a confrontation with an unaccountably posed problem as a tense situation that only contributes further to his task shyness, learning indifference, blunted learning disposition and even aversion for learning (Meyer, 1982: 214).

#### **3.5.3 Inadequately guided learning during exposing the new contents**

A lack of logical and systematic progress with the lesson contents can lead to confusion and uncertainty and for a child who already experiences learning problems this can disturb his attending. A presentation that is marred by factors such as poor articulation, boredom and poor language skills, lack of clarity, succinctness and animation can cause the pupils to not understand the contents and merely participate in the lesson perfunctorily.

#### **3.5.4 Inadequately guided learning during actualizing (controlling) the new contents**

During this phase opportunities have to be provided for controlling the insights, reviewing, summarizing, surveying, schematizing and practicing the acquired insights. When there is hasty, poor planning or a deluge of contents in this phase, this intensifies in a child with learning problems a superficial, trial-and-error and impulsive learning involvement that leads to an inadequate learning effect and an inability to functionalize or use the contents.

#### **3.5.5 Inadequately guided learning during functionalizing the contents**

Among other things, functionalizing means intensified, deeper understanding, application and novel creations (Van der Stoep and Van Dyk, 1977: 200). The teacher can impair functionalizing when meaningless, too many or too difficult assignments or exercises are given. As a result, the child does not lived experience and experience that what he has learned is applicable and useful and the meaning of the learning task for him will be lost.

#### **3.5.6 Inadequately guided learning during evaluating**

Evaluating a child's work with the aim of his advancement and improvement means that the teacher and the child have to be accountable for the quality of their normative participation in the lesson (Meyer, 1982: 221).

This phase clearly provides an opportunity for intercepting learning problems. Punishing mistakes, destructive criticism, warnings and berating in front of others can discourage a child and weaken his learning intention so that he even becomes alienated and can develop an attitude of resistance against school tasks.

### 3.6 Inadequate affective, cognitive and normative guidance by the teacher during the lesson

**Affective guidance** is the basis for effective learning (Sonnekus and Ferreira, 1979: 35). If a teacher appeals only to a child's intellectual potentialities and in his lesson giving activities does not allow room for concern, interest and positive encouragement and is thereby over critical, this can so unnerve a child who experiences learning problems that it impedes his effective learning. A teacher, by his behavior (restlessness or excessive passivity), disposition (aloofness, lack of interest, dejection, fault-finding, irritability, restlessness) and even tone of speaking (unsympathetic, restless) can allow a class atmosphere of uncertainty and anxiety to arise that can lead to fluctuations in attending (Dednam and Bouwer, 1985: 61-63).

Appropriate **cognitive guidance** by the teacher leads to a cognitively ordered actualization of a child's psychic life (Sonnekus and Ferreira, 1979: 386). The following deficiencies in the quality of his cognitive guidance, however, can lay the foundation for a child's learning problems:

- \* Neglecting the demand to properly design a lesson might lead to a confused presentation that can hinder a child in acquiring proper insight into the lesson contents;
- \* neglecting the principle of differentiation might lead to overlooking individual differences among the pupils so that the same learning achievement is expected by all. For a child who experiences learning problems and who masters the contents more slowly and "differently", this misunderstanding of being different perhaps can lead to an intense experience of impotence; and
- \* failing to verify, during all phases of a lesson, whether the pupils have an ordered grasp of the learning contents can result in a child, whose learning problem, e.g., can retard his learning tempo or can allow his attending to fluctuate, acquiring gaps in his possessed knowledge by which important core facts, necessary procedures, basic principles, etc. will be lost. This deficient knowledge can be the origin of a learning problem or worsen an existing one.

When a teacher's cognitive guidance is unplanned and unordered and/or when the class atmosphere is threatening and tense, a pupil will experience the lesson and its contents as meaningless. When a

pupil is not guided so that he discovers the meaning of the contents and readily makes them his own, there is mention of inadequate **normative guidance**. By his propensities and dispositions, a teacher also can neglect his task of normative guidance and directly give rise to the pupil experiencing his participation in the lesson as meaningless and ultimately learning problems will appear (Czerwenka, 1984: 371). Repeated verification is the only way a teacher can ensure if his lesson aim continually is attained or not.

#### 4. DEFICIENT CONTENTS

The purposeful teaching of selected contents occurs with the expectation of effective learning that results in a thriving and deepening participation in reality. Without learning dividends attending school is a meaningless activity (Van der Stoep, 1972: 58). Teaching and learning activities only can lead to adequate learning dividends if they function harmoniously with the learning contents. Although the components teaching, learning and lesson contents do not occur in disharmonious isolation, from the above discussion it appears that learning derailments can be traced back to deficiencies in the activities of teaching and/or learning. It also is possible that the learning contents can give rise to learning derailments. Van Niekerk and Van Zyl (1984: 55) indicate that the convergence of teaching, learning and contents lies in the fact that a child has to be able to **establish a relationship** with the particular contents that have been uncovered for him by the teacher. Even if the contents are unlocked with optimal effectiveness, aspects uniquely inherent to the contents themselves can give rise to inadequately or negatively established relationships with them and learning problems can arise from this. When for one reason or another the contents are experienced as too difficult or as too much, a child can be labilized so that even his sensing, as an initiating mode of learning, cannot be actualized adequately. When the contents are overemphasized at the expense of the unlocking role of the child himself in particular subjects, the inadequacy of the lesson becomes conspicuous (Van Niekerk and Van Zyl, 1984: 55).

The **nature** of the subject content might possibly predispose learning derailments: consider, for example, the challenges that learning English spelling presents such as its inconsistent phonetic structure, non-phonetic ways of spelling, differences between the written symbol and pronunciation, and the large number of rules of spelling and exceptions that have to be mastered. Further, it might

be difficult to link the subject contents to a child's experiential world. For example, in this regard, think of the difficulty some rural Afrikaans boys can experience with "A Midsummer Night's Dream". Children who are compelled to take specific subjects not appropriate for their abilities and interests are delivered to the possibility of being squeezed into learning problems. Here the root of the problem often is in the nature of the subject, in the degree that it requires logical thinking, exactness, accuracy, an attunement to language, creativity, etc., all personal qualities that the child of concern simply might not have.

Problems of content also might arise when, because of absences or of changing schools, the logical relationships among the components of the contents are lost to a child and then the insights on which subsequent steps of thinking and solution strategies are based are lacking.

## **5. GENETIC-PHYSIOLOGICAL CONDITIONS UNDERLYING LEARNING RESTRAINTS**

### **5.1 Turner's syndrome**

Turner's syndrome is a chromosomal deviation that occurs in girls and can be diagnosed at birth (Lewandowski, 1985: 177). Girls with this syndrome show physical deviations (short stature, deviations in sexual organs) as well as perceptual, motor and cognitive deficiencies that restrain visual-motor and visual-spatial skills. In most cases, such a child possesses intact language abilities (average verbal IQ score) but problems are experienced with drawing objects and dealing with complicated problems, especially mathematical ones. Neutralizing these problems is possible by occupational and physical therapy and perceptual-motor programs. Adaptations in the curriculum also can put these children in a position to achieve optimally.

### **5.2 Prematurely born children with cerebral hemorrhaging**

Newly developed techniques make it possible today to identify these children early. At five years these children manifest the following learning deficiencies (Lewandowski, 1985: 177): motor problems, perceptual defects and mild neurological symptoms. This causes premature babies with cerebral hemorrhaging to be strongly predisposed to learning problems. Since it is possible to diagnose

this condition at birth, it is possible to monitor the actualization of their becoming and learning and to implement early intervention programs.

### **5.3 Children with deviations in hemisphere connections**

If the relation between the two brain hemispheres is not fully developed, a child experiences problems integrating the use of the two halves of his body, especially during the years when motor development occurs. Linked with this, perceptual defects also arise. Improved techniques of brain research make it possible to diagnose such deviations at birth and to implement helping programs (Lewandowski, 1985: 178).

### **5.4 Children with brain injuries**

Children with acquired brain injuries because of accidents, assaults, sport injuries as well as children who develop brain tumors undergo a change in brain function that in most cases restrains their school achievement (Lewandowski, 1985: 178). They find it difficult to keep up with the pace and the scope of the learning contents and also show language defects, perceptual and motor problems and memory difficulties. Since recovery occurs within a year after the injury, timely intervention programs are necessary to avoid learning handicaps.

### **5.5 The child with poor ability**

Children are classified as having poor ability when their IQ falls between 80 and 90. They constitute approximately 15% to 25% of the school population (Du Toit, 1980: 104). Special schools or schools for the intellectually restrained are not provided for them because experience has taught that to a reasonable degree most enter an ordinary school. In addition, it seems that the qualifications they acquire in an ordinary school are of greater value than what is otherwise the case. However, poor ability inevitably leads to learning problems (Dumont, 1980: 105) mainly because of a slow learning tempo and an inadequate ability to think which is characterized by poor abstraction regarding overall structuring, classifying, ordering, synthesizing, schematizing, etc. Labilized sensing impedes all of the other modes of learning.

## **6. SYNTHESIS**



From the above it is clear that there are particular restraints that can largely predispose a child to learning problems. In this regard, specific deficiencies in learning abilities, neurological and other dysfunctions figure very prominently.

In addition, learning problems can be the result of a variety of reasons and can appear in a variety of forms and it is difficult to determine precisely what is responsible for a particular learning problem. In order to penetrate to the essence of any learning problem the learner first has to be viewed as a personal actualizer and as a totality rather than concentrating on isolated modes of learning that are conspicuously underactualized. The underactualization of the modes of learning continually has to be analyzed in relation to the disharmonious dynamics of educating and, especially, of teaching. In this regard, there has to be an attempt to identify as many correlates as possible.

Three main groups of correlates of the disharmonious dynamics of teaching and thus of learning problems distinguished are a **deficient actualization of learning, deficient teaching and deficient learning contents.**

A child's habitual affective learning involvement with the contents and his unique cognitive learning style have to be analyzed. There is reference to the effect of underactualizing the various modes of learning on the learning outcome.

In addition, the teacher and those who give non-formal and informal instruction can contribute to the appearance and intensification of learning problems of individual pupils when the uniqueness of each pupil's affective and cognitive styles of learning are not adequately taken into account while the contents are unlocked.

The importance of thoroughly planning a lesson is emphasized and also indicated are the various relevant aspects that have to be taken into account by the teacher, especially during the phases of a lesson, in order to prevent learning problems from arising.

The necessity for continuous evaluation and control (verification) of the learning effect during each lesson phase, when a teacher is involved with teaching, can not be overemphasized. An insecure child generally has to be given sufficient emotional support to

strengthen his learning-directed intention and be guided effectively to actualize his cognitive modes of learning.

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