CHAPTER 11

DISHARMONIOUS EDUCATIVE DYNAMICS: THE TERRAIN OF ORTHODIDACTICS

1. LEARNING PROBLEMS AS PHENOMENA

A child has a learning problem when there is one or another obstruction that hinders his learning adequately. Thus, a child has learning problems if the actualization of the modes of learning such as attending, perceiving, thinking, imagining and fantasizing as well as remembering is inadequate. Viewed in this light, a child with learning problems is someone who underactualizes his given potentialities to learn (Van Niekerk and Van Zyl, 1984: 46). Dumont (1980: 17) sees underactualization as the discrepancy between actual and possible learning achievements. "What doesn't come out stays in. We always expect more to come out than does" [in Dutch]. There is mention of **primary** learning restraints when a child has difficulty learning in school and there are no motor, sensory, intellectual, emotional or social factors to which the problem can be attributed. When a learning restraint is attributable to any of the mentioned factors there is reference to **secondary** learning restraints and there is talk of a child with learning difficulties (Dumont, 1980: 21).

However, learning problems are one of the most general phenomena of a didactic situation since actually every child experiences a learning problem at one time or another (Van der Stoep and Louw, 1976: 358). When such a problem is not serious in degree or extent, often it only is of a temporary or passing nature and can be eliminated in a normal teaching situation by extra support and guidance. However, when for one or another reason a child increasingly finds it impossible to meet the demands of the learning task, his learning situation becomes a crisis situation for him that can lead to obscuring his intentionality (and he becomes unwilling) and attenuating his future.

The pedagogic criteria for identifying a learning problem include a gap between the achieved level of learning and the achievable level as determined by a child's given learning potentialities as well as a restrained becoming adult (Meyer, 1982: 32) that is manifested as a

"maturational lag", poor acquisition of identity (poor self-image and uncertainty), over-dependence, inadequate actualization of his uniquely given potentialities, an inability to perform objectively, rationally and matter-of-factly in accordance with the criteria for his phase of becoming, etc. Furthermore, all concerned persons, i.e., the child himself, his parents and teachers experience their situation as problematic. However, it is especially the child who interprets his teaching situation with feelings of impotence, distress, confusion, as being stuck, dejection, lonely, guilty and disillusioned. Because of his restraint in learning and becoming, he finds himself in the midst of a problematic educative situation, namely a situation "... which is experienced by the parties as without prospect, meaningless and threatening and which one is unable to satisfactorily change and offer a changed perspective without professional help" (Ter Horst [in Dutch], 1972: 3).

2. TYPES OF LEARNING PROBLEMS

2.1 Poor achievement

When a child achieves poorly according to a particular norm, e.g., the average on a standardized test, or the achievement of his classmates or age group because of deficient learning abilities, there is mention of **poor achievement**. If such a child achieves optimally according to his learning potentialities it still remains poor in comparison with the norm.

2.2 Under-achievement

When a child does not optimally actualize his learning potentialities so that there is a gap between what he attains and what he can attain, there is mention of under-achievement. His learning achievement might even be better than that of his classmates but if there is mention that he should be able to achieve even better, such a child is described as an **under-achiever**.

2.3 Specific learning disabilities (handicaps)

As described in the Law of Educational Services (Law No. 41 of 1967), a disabled child is one who deviates to such a degree physically, mentally and behaviorally from the majority of children that he:

* cannot profit adequately from ordinary teaching which is provided in the normal course of teaching;
* teaching of a specialized nature is necessary to facilitate his adaptation to society; and
* ought not attend an ordinary class in an ordinary school because such attendance can be detrimental to him and to the other pupils in class, although he is educable and will profit from teaching of a specialized nature.

The following categories of learning disabilities are differentiated:

* Deaf children;
* hard of hearing children;
* blind children;
* poor sighted children;
* epileptic children;
* cerebral palsied children;
* physically disabled children: and
* children who suffer from a defect and to whom the teaching authorities refer as disabled children have to be provided for by virtue of the Law.

A disabled child is a pupil who's uneliminatable handicap requires that special teaching (including remedial teaching) be provided to him. Although his becoming adult and learning are not essentially different from a non-disabled child, he is committed to special teaching because of his limiting circumstances.

A distinction also is made between a primary and a secondary disability. On the basis of the primary disabilities already mentioned, secondary disabilities and/or complications can appear in a disabled child such as the following:

* Emotional tension and inability to be engaged;
* problems of self-acceptance;
* scholastic problems;
* frustration because of a limited experiential world;
* behavior deviations;
* poor self image;
* over-compensation;
* negativism; and
* a low tolerance for frustration.

The nature and scope of the disability, taking into account the appearance of primary and/or secondary disabilities, are determinants of a child's accountable placement (RGN, 1981: 151).

In the framework of disabled children it is relevant to refer to the so-called group C specific learning disabled child. It generally is accepted that the inadequate learning of these children is related to a malfunctioning of the central nervous system on the basis of which there also is reference to a psychoneurological learning disability although no irrefutable evidence for this has yet been found (RGN, 1981: 109).

The appropriate criteria for identifying group C pupils, according to the Committee of Heads of Teaching (KOH, 1980), are:

* A serious handicap in language, reading, writing, spelling and arithmetic;
* the learning difficulty must be a manifestation of a particular psychoneurological dysfunction;
* the possibility of external factors as origins of the learning problems have to be excluded;
* preferably the pupil should not be older than 12;
* preferably the pupil should already have received orthodidactic help regarding his learning disability;
* the pupil has to show average or high intellectual ability on an individual scale and indicate a characteristically insightful response pattern; and
* the absence of one or more of the following interpretations is decisive for the final selection: "Hard" neurological signs, "soft" neurological signs and/or EKG abnormalities.

Characteristic behavior deviations that arise, among others, are hyperactivity; attention and concentration disturbances, affective lability and impulsivity, aggression and wild outbursts, lying, theft, poor socializing and engagement, fear of new situations, lack of persistence, a poor self image and self confidence, a lack of planning and abstracting, deficient memory, problems with coordination, laterality and dominance, visual and auditory perception deficiencies resulting in reading, speaking and language disabilities.

Pupils with serious learning handicaps usually are identified by a process of elimination when they show little or no change with full-

or part-time remedial help. If these pupils, after a reasonable period of full-time remedial teaching, cannot be returned to regular teaching, but for an unspecified period are committed to full-time intensive orthodidactic help, they can be identified as pupils with serious specific learning disabilities (KOH, 1980: 45).

2.4 Specific learning restraints

A learning restrained child is one who does not achieve according to his potentialities and who also is known as scholastically restrained (RGN, 1981: 142). According to Lerner (1981:7) the concept "learning restrained" refers to the fact that a child shows deficiencies in actualizing his modes of learning that lead to his experiencing problems in understanding spoken or written language, which eventually can lead to an inability to think, talk, read, spell and to do arithmetic computations.

Additional criteria for learning restraints are phenomena such as unreadiness to learn, restlessness, hyperactivity, troublesomeness, distractible attending, daydreaming, a-sociality, weepiness, poor visual and auditory discrimination, poor acoustic and visual memory, affectively impulsive and labile (RGN, 1981: 145-146). This child's learning impotence cannot be ascribed to visual, auditory or motor problems, mental retardation, emotional problems, poor teaching or a disabling environment; thus, against all expectations, their achievement is poorer than what they are capable of. Hence, the restraint refers to slower progress in the child's becoming and learning, in his personal actualization, and has the possibility of being eliminated or corrected. In this connection, there is further differentiation between group A and B pupils for whom provision is made in ordinary teaching. **Group A pupils** experience a learning problem that is not very serious and that can be handled within a normal classroom with individual help from the teacher. **Group B pupils** have to contend with a more serious learning problem and correcting this usually is related to a timely removal from the mainstream to an aid class or "Remedial School" (see Van der Merwe, 1985) only to the end of the year in which he becomes nine. During this period he is provided full-time orthodidactic help in a small group. However, a condition is that he have an IQ of 95+ otherwise he is a candidate for special education that provides for mentally retarded children. The aim of category A and B teaching is to provide help that concentrates on a child being able to resume receiving ordinary teaching as quickly as possible,

which means that his personal actualization has to be harmonized to a reasonable degree. Therefore, it is important that the curriculum of the aid class as well as of the school for learning disabilities is the same as that of ordinary teaching as far as is possible.

An authentic orthodidactic task for the educational psychologist is the learning restrained child, since neutralizing the inhibiting moments of learning and bridging the gap between the achieved and achievable level of learning always includes the possibility of correcting them.

With respect to a learning disabled child, the task of the educational psychologist also includes the identification aspect as well as giving expert advice regarding a teacher's intervention in accordance with the particular demands required by each form of disability.

3. DISHARMONIOUS DYNAMICS OF TEACHING

Disharmonious dynamics of teaching refer to the fact that the relations among teaching activities, the essentials of the contents and the child's learning activities function disharmoniously (see Van Niekerk and Van Zyl, 1984: 48). A disharmonious lesson situation is, according to Du Toit (1980:23), a situation in which there are disturbed relations among the essences of educating, teaching, learning and the contents with the consequence that the essentials of the lesson structure are attenuated. This approach broadens the concept "learning difficulties" because the child is not described in isolation from his learning situation only in terms of his defective modalities of learning such as perceptual-motor or auditory-verbal problems or merely in terms of educational difficulties. In this way, it is accepted that disharmonious lesson situations and the related disharmonious dynamics of teaching figure in the basis of a learning difficulty although, realistically, it is understood that not all disharmonious lesson situations lead to learning difficulties (Du Toit, 1980: 23). The ineffective role of a teacher can be that he makes mistakes in selecting and reducing the learning contents, stating the lesson problem, systematically unlocking the lesson contents, estimating pupils' skills, proficiencies and techniques, the meaningful control (verification) of the teaching and learning effect, the functionalizing aspect and the steps of evaluation so that the learning contents are unlocked inadequately and that it is not possible for him to learn effectively.

Even if teaching is effective, the lesson content might be the reason for the disharmonious teaching dynamics in the sense that its level of difficulty might be too high or low, the core concepts and relations are not clear enough, unlocking strategies and algorithms are not elucidated, and learning techniques and fundamental principles are not indicated.

In addition, the self-unlocking learning role of the child might be inadequate and contribute to the disharmonious dynamics of teaching. Inadequate learning leads to inhibited becoming, an underactualized psychic life and educational distress. Educational distress, in the first place, is affective distress and always is education-impeding (Van Niekerk, 1976: 122). Thinking about inhibited learning and the associated disharmonious dynamics of teaching also implies reflecting about the correlated disharmonious **dynamics of educating**, specifically in terms of the fundamental pedagogic structures, i.e., the pedagogic relationship, sequence, activity and aim structures and especially with the purpose of gauging the quality of the communication among those involved. The question is if the disharmonious dynamics of teaching have not given rise to an increased breach in communication by which a child increasingly experiences an inability to make his distress known to the adults and the adults increasingly experience an inability to assist the child in his distress.

4. HELPING AUTHORITIES

4.1 Introduction

Depending on the multidimensional nature of the learning problem, the educational psychologist, as orthodidactician, has to design a coordinated program of assistance in connection with the relevant persons or authorities, for example, formal teaching, the medical profession, occupational therapists, speech and audiology therapists and social workers. Thus, a multi-dimensional approach is the most accountable to provide effective help to a child in distress (Lupart and Mulcahy, 1984: 217).

4.2 Formal teaching

Contributions from the teaching event mainly are of a practical nature since the persons involved are directly concerned with the realities of educating and teaching and what is especially important

to the educational psychologist as orthodidactician is the child's optimal learning (see Lerner, 1981: 12). On the basis of their training and practical experience, teachers, aid class teachers, teacher advisers and curriculum experts actually are in a position to provide valuable input for helping a learning restrained child. Their grounding and expertise include aspects such as didactic formedness, thorough subject matter knowledge, knowledge of the learning restrained child and his inadequate learning, curriculum matters and the organizational arrangements of the school in which the program of assistance is to be used (RGN, 1981: 183 et seq.). The teacher is a valuable member of the assisting team and his involvement truly is a precondition for harmonizing the dynamics of teaching.

At first a teacher can make a provisional, tentative evaluation of a child's actualization of learning, i.e., the ways in which he senses, perceives, attends, thinks, imagines and fantasizes, memorizes, remembers and actualizes his intelligence as well as the quality of his learning readiness and intentionality. Behaviors such as restlessness, hyperactivity, wandering attention, stubbornness, daydreaming, weepiness, insecurity, changing emotional dispositions and impulsivity also are to the experienced teacher indications of an inadequate learning readiness and intentionality.

In summary, the teacher's role in providing help to a learning restrained child includes the following:

* The identification of underachievement as a discrepancy between learning potential and learning achievement;
* the identification of a child who experiences problems with particular modes of learning:
* the observation of manifestations of a lack of readiness to learn such as behaviors indicative of affective lability;
* knowledge of circumstances in a child's historicity that can lead to learning problems; and
* evaluation of handicaps in a child's language acquisition and development.

In the secondary school, a learning restraint manifests itself mostly as a subject matter problem and in this regard the role of the teacher in diagnosing and providing assistance is particularly valuable (Estes, Hallock and Bray, 1985: 712-715).

In implementing the designed program of assistance the role of the teacher is important in his supporting the components of making a child ready to learn by helping in neutralizing the learning restraining moments, implementing the recommended programs of giving help in compliance with the optimal actualization of the essentials of the lesson structure in relation to particularized didactic techniques and teaching and learning aids as demanded by the problem at hand and giving support to modify a child's negative meanings and neutralize his affective distress in terms of his knowledge of aggravating circumstances in the child's educative and teaching situations.

The primary orthodidactic task of the educational psychologist includes helping a learning restrained child where the possibility of neutralizing the impeding moments is accepted as a precondition. By definition the intervention with a **learning disabled** child as the task of other didactically specialized persons is clear. The demand for a reliable diagnosis of authentically **uneliminatable disabilities** necessarily requires the determination of physical, sensory, organic, psychophysical and neurological disabilities by medical practitioners.

A variety of problems require referral to neurologists, psychiatrists, ophthalmologists, audiologists and other medical experts for further diagnosis and advice. In particular the educational psychologist ought to be familiar with the attention deficit disorder (previously known as "minimal brain dysfunction"), the way in which this "defect" impedes effective learning, and strategies by which it can be neutralized efficiently so that a child can learn effectively (see below).

4.3 General practitioners and pediatricians

The training of physicians includes the diagnosis of handicaps and motor problems so they are in a position to advise parents regarding observed retarded development that possibly can influence a child's optimal learning. On the other hand, it also is the case that worried parents notice indications of problematic behaviors that are closely related to inadequate learning such as unrestrained tantrums, low level of tolerance for frustration, distractibility, moodiness, inclination to withdraw and even poor school achievement often first brought to their attention by a general practitioner. On the basis of his knowledge of a child's physical development and

conjectures regarding inadequate affective and cognitive becoming and the actualization of learning and deficient learning effects, the physician is in a position to make a referral to educational psychologists.

The following responsibilities of the medical practitioner who is concerned with a learning restrained child are distinguished:

* The diagnosis and treatment of any physical and physiological disability that might impede learning such as visual and hearing defects, under- and mal-ourishment and endocrine and metabolic abnormalities;
* make known to the parents and other persons involved with the child the nature and implications of the medical findings, especially in terms of their implications for the child's learning;
* give positive support if the diagnosis is unusual and if it appears to be necessary for the relevant teacher to intervene;
* determine if medications can contribute to effectively stabilize the child as a preparation for pedotherapy and orthodidactic assistance; and
* give continued support to the family and a continuous evaluation of the progress that especially occurs on a physical level and thus can be interpreted as favorable to learning.
* In addition to the above responsibilities, the physician also has the task of supplying all of the most relevant information regarding the influence that medications might have on the child's learning, for example, shortening attention span, drowsiness, etc.

Erwee (1980: 166) refers to the value of electroencephalographic data for determining problems such as hyperkinesis, subclinical epilepsy and temporal lobe dysfunctions, especially with the aim of administering medications. In addition, the determination of glucose tolerance also is an investigation carried out since it is related to learning restraints (Logue, G. D. as cited by Erwee, 1980: 166).

Of particular value is the investigation of all pupils in the primary and secondary schools carried out by the school medical services where, among other things, there are indications of a child's state of motor development, vision and hearing and examinations, in areas where justified, to establish if there is the appearance of learning impeding conditions such as bilharzia (parasites).

Educational psychologists ought to view as standard procedure that all pupils scheduled for an orthodidactic study be referred for a medical examination.

4.4 Psychiatrists

The psychiatrist's approach to a child with learning problems includes the integration of organic and psychotherapeutic deliberations concerning learning problems. According to Lerner (1981: 69-70), learning restrained children are referred to psychiatrists because of the moments of affective disturbances requiring "treatment". According to Lerner (1981: 70) the psychiatrist ought to work with the child, his parents and other family members and coordinate his contributions with those of the school or persons responsible for the orthodidactic assistance.

4.5 Neurologists

There is consensus everywhere that neurological factors underlie learning restraints (Cruickshank, 1981: 8) and therefore an evaluation of the central nervous system and its functioning is of particular importance (Lerner, 1981: 155). However, many children with learning problems do not show "hard" neurological signs such as abnormal or deviant reflexes, problems with focusing the eyes, atypical sounds when the skull is tapped and varying strength in the different halves of the body (Erwee, 1980: 167) but rather they show "soft" signs such as slight coordination problems, light shaking, motor clumsiness, visual-motor problems, and defective or abnormal retardation in language acquisition (Lerner, 1981: 61). Notwithstanding EEG and X-ray studies of the skull and the blood vessels of the brain, media such as the Bender Visual-motor Gestalt Test is implemented to confirm indications of neural problems. A contemporary field of research is neuropsychology (Lezak, 1976) by which particular learning defects are attributed to deviations in specific parts of the brain. Following Myklebust (1968), Dumont (1973: 43-57) uses the term **psychoneurological dysfunction** to indicate that the brain of learning restrained children does not function adequately to support and make effective learning possible (Dumont, 1976: 46), but indicates that the expression of this defect primarily is behavioral and not neurological (Dumont, 1976: 48).

4.6 Ophthalmologists

Acute vision and visual perception are preconditions for the effective discovery of meaning by reading, writing, spelling and computing. Ophthalmologists provide a valuable contribution to the evaluation of the following optical functions:

* Focusing both eyes on a fixation point;
* the effectiveness of fixation abilities, i.e., accurately and quickly shifting from looking at one object to another;
* convergence abilities, i.e., focusing on an object that moves closer;
* accommodation abilities, in other words, maintaining a clear focus on a receding object (Lerner, 1981: 65).

Although the American Academy of Pediatrics and the American Academy of Ophthalmology issued a clarification in which it was stated that children with learning restraints appear to have the same eye abnormalities as ordinary children and that a multi-disciplinary program of assistance has to be followed rather than merely eye exercises. Recent research indicates that dyslexic persons manifest particular visual defects such as faulty saccadic eye movements and a diminished eye-span (Tansley, 1981: 105-108). An eye examination at the slightest suspicion of visual defects thus appears to be in order with the aim of determining the visual acuity at near and far distances, refractory difficulties and binocular problems. Although to date one cannot show that eye problems **cause** learning restraints, it has to be accepted that learning problems can be aggravated by them.

4.7 Ear, nose and throat specialists

Hearing defects during the sensitive period of language acquisition can lead to serious language deficiencies. In the school framework a child is dependent to a large degree on a usable hearing ability since a large part of the teaching occurs by means of oral assignments. Irrespective of adequate auditory acuity a child also has to be able to ignore background noise. The loss of particular frequencies might lead to a child, e.g., not being able to clearly hear the voices of men or women. Loss of hearing in one ear might determine where a child ought to be seated in class. Allergies, sinusitis, hay fever and chronic middle-ear infections can cause learning impediments and consequently quick referral to an ear-, nose- and throat specialist is justified.

4.8 Paramedical experts

4.8.1 Occupational therapists

The **occupational therapist** provides a valuable contribution to the evaluation of perceptual and motor coordination. According to Kephart (1971: 114-117), adequate perceptual-motor development is a precondition for a reliable world image. According to him an unstable world image can give rise to perceptual and cognitive problems. Notwithstanding giving help with skills such as balance, movement, the synchronization of perceptual and motor skills, the occupational therapist supports a learning restrained child with respect to matters such as spatial relations, visual discrimination, figure-ground differentiation, visual closure, perceptual constancy, etc. all of which are related to learning restraints (Dumont, 1976: 110-138).

4.8.2 Physiotherapists

The physiotherapist's assistance is directed to improving particular physical functions such as breathing, coordinating the various parts of the body and also bringing forth correct body attitudes. The physiotherapist's contribution is in eliminating learning impeding physical conditions such as a lack of energy (Elwee, 1980: 168), asthmatic attacks, sinusitis, etc. and providing support to strengthen a positive body concept.

4.8.3 Other psychologists

Because of his schooling in education and psychology and more particularly the various theories of learning as postulated by Piaget and others, and the affective, cognitive and normative determinants in teaching and learning as described by psychologists such as Bloom, Erikson, Kagan and Kohlberg, the educational psychologist is in a position to integrate them when they are relevant to intervening with a learning restrained child. In particular cases referral to clinical psychologists might be necessitated by the identification of serious personal disturbances. In this case it could mean the end of real orthodidactic assistance because of the child's loss of involvement in reality.

5. THE EDUCATIONAL PSYCHOLOGIST AS AN ORTHODIDACTICIAN

On the basis of his knowledge of psychopedagogics (also called "educational psychology"), whose area of study is a child's learning and becoming, also in the secondary educative situation, namely, the school, his knowledge of didactics, of subject didactics and relevant learning theories, an educational psychologist is able to make expert judgments about a child's optimal actualization of learning. According to Van Niekerk (1984: 144), the educational psychologist as orthodidactician, on the basis of his knowledge of education and psychology, has to provide the theoretical foundation to a practicing teacher regarding a child's actualization of learning and becoming, but his primary task concerns a child who manifests personality development and learning problems and to provide help to such children by means of pedotherapy (making him ready and prepared to learn) and orthodidactic assistance (that includes remedial teaching). His overarching task is to establish strategies of evaluation, intervention and assistance on the basis of a specification of the disharmonious moments of the dynamics of teaching in terms of the teachers and/or child's role, on the one hand, and deficient learning contents and phases of the lesson, on the other hand, by which the defects in actualizing learning can be averted or eliminated.

6. TRANSPROFESSIONAL COLLABORATION

A team approach to evaluating and diagnosing a learning restrained child is recommended by which the expertise of everyone involved is integrated into a reliable person image of the child. Since the educational psychologist eventually will plan the orthodidactic assistance and put it into practice, it seems meaningful that he should function as the coordinator of the diagnostic procedure. On the basis of his grounded knowledge of the specialized services that the other professions offer to the intervention with a learning restrained child, he ought to be able to decide about the composition of the team.

Erwee (1980: 170-171) provides the following guidelines for the collective diagnosis:

* A totality approach must be followed in which the child is viewed in his being-on-the-way-to-adulthood and where assistance is always viewed as diagnosis so that continued evaluating will be exercised

and the disciplines should mutually operate together with the aim of compiling all relevant information;
* the particular (philosophical) anthropology held by the educational psychologist, and especially the norm-centered educative and teaching aims striven for ought to be understood. The particular demands that the educative guidance of the learning derailed child poses have to be taken into account;
* there must be an understanding of the high demands of the task and aims of the physician. His method often is eliminative in nature so that he primarily is dependent on the reliable feedback of information from the primary and secondary educators. The physician especially is dependent on the teachers' descriptions of the child's behaviors within a class or group (Erwee, 1980: 171);
* the integration of the assistance by the paramedical team members has to be closely synchronized so that it can be supportive of optimal learning;
* the orthodidactician, in terms of determining a dynamic teaching and learning image, can form an image of the course of learning as a unitary image of all of the convergent, specialized information regarding a particular child: only within the phases of a lesson can such information be tested in the practice of educating (Erwee, 1980: 172) during which all pedagogic criteria are implemented and the validity of the multidisciplinary contributions can be determined.

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