

CHAPTER 7 THE LESSON STRUCTURE

1. INTRODUCTION

In the previous chapters, a scientific description was given of the various aspects of a teaching situation. The aim of this chapter is to interpret these findings and apply them to actual teaching situations. In order to describe a teaching activity (the task of didactics) a didactician must bring it to a standstill, so to speak. Only then can he systematically determine and validly synthesize the essences of this activity. The understanding reached in this way enables a theoretician to advise and guide a teacher in planning a lesson.

In contrast to this, a teacher plans a particular lesson for particular children and he chooses particular contents (learning material) for them. His lesson especially shows a dynamism, i.e., its shows movement in time. This dynamism is seen in a teacher's guiding/accompanying a child from a not knowing and not being able to a knowing and being able until he becomes adult—*educative* teaching does not continue beyond that time [although teaching does]. Therefore, a teacher's task is to establish a teaching practice out of his scientific knowledge of teaching (didactic knowledge) by particularizing and interpreting it for a specific teaching situation; this is because the theoretical always refers to the general while, in his practice of teaching, he is always involved with the particular.

However, it also is true that a didactic theory does not always remain on a strictly abstract level but in its findings it moves closer to practice. This essentially means that each didactic theory eventually results in a particular practice simply because the theory describes a piece of practice that eventually must be put into motion again. A valid theory must always be able to become a practice. The essential relationship between theory and practice is contained in this statement because theory without practice is lifeless and easily degenerates into mere speculation while practice without theory is usually sterile and unable to account for or improve itself. The conduit from theory to practice or the juncture

between them is called a *lesson structure*. It is in terms of a lesson structure that a teacher is able to interpret a theory for practice, and especially for his particular practice.

From the above it is clear that each didactic theory must necessarily result in a lesson structure so that it is a lesson structure that can provide a justification for a teaching practice. If various didactic theories are examined, we see that each has its own lesson structure. A lesson structure provides a course, as it were, by which a theory is actualized (made actual or real) in practice. A very clear example of this is a behaviorist theory of learning (as a one-sided theory of teaching) that maintains that a human being learns by correct responses to particular stimuli being rewarded. Even though this theory of learning is not a didactic theory, as such, it does have didactic consequences because, according to it, the didactic task (especially regarding method) is to construct lesson situations where the correct responses of children to certain stimuli are strengthened so that they will learn. A lesson structure stemming from this learning theory is so-called programmed instruction (see Chapter 10: Teaching strategies, programmed instruction).

Unfortunately, each didactic theory does not have the same point of departure; in fact, they often have contrasting and even contradictory points of departure. This explains why there are so many teaching models and lesson structures; this diversity is confusing to a student teacher.

The point of departure for the lesson structure described in this chapter is described in the first six chapters. The aim here is to view the concept “lesson structure” more closely so that the pronouncements about it that follow will not be confusing.

2. THE CONCEPT “LESSON STRUCTURE”

The concept “structure” (derived from the Latin *structura*—to build) refers to the origin or beginning of something. In this context, “lesson structure” means the origin or beginning of the activity we call “giving a lesson”. But even more, “structure” also means acting in order to combine or constitute. This means that a “lesson structure” is the origin or beginning and presumes the combination

of related aspects. This origin or beginning is not easy to indicate because so many particularities, opinions, standpoints, etc. have arisen that the origin, basis, point of beginning or primary facts are glossed over. This theme is returned to later.

As far as the “lesson” of the lesson structure is concerned, it has been practiced for centuries in one or another form of teaching. The concept “lesson” is closely related to the concept “read” (Latin: *lectio* – to read). Through religious practice it later acquired the meaning of reading part of the Bible to someone during public worship. The contemporary meaning of teaching had its origin in this aspect of instruction and in the course of time it acquired a school meaning. This meaning of the word also is linked to the rise of the book publishing industry because a teacher or docent had read from the manuscript for his pupils. Thus, the original meaning of the word “lesson” is much broader than the meaning given to it in school. And yet the concept “lesson” is the hub of the activities that occur in school and that, therefore, gives schooling its particular character.

However, it would be scientifically impossible and even unaccountable to deduce the origin or beginning (structure) of a lesson from schooling or search for it there. In its essence, schooling is a reconstitution of the original activity of teaching that shows itself in the spontaneous and naïve educative activities in the home (See Chapters 2 and 3). Teaching in a family situation, that carries educating and makes it possible, thus is the place or source or beginning where a lesson has its origin and where its meaning must be found by a teacher.

Although a child also is educated outside of the home, it is in the home situation where one originally experiences educating; the *original experience*, then, is the ground or source of a lesson structure. The reason for this judgment is the unbreakable relation between educating and teaching that was discussed before. This briefly amounts to the fact that the parent in the family situation educates his child in terms of particular contents (norms, customs, attitudes, habits, skills, etc.). A parent does this to try to attain a particular educative effect that actually amounts to increasing his child’s adulthood. We say a parent unlocks the contents for his

child; he unlocks the meaning and thus the sense of the contents for his child. This activity of unlocking is a pure act of teaching. This means that as there is educating there is teaching, or, as previously discussed, teaching carries and initiates educating; i.e., teaching makes educating possible, and in this respect is the only way to educate. It is in the original educative situation that teaching shows its purest appearance. Consequently, we can say that teaching shows itself most purely and clearly in the original experience of educating.

A teacher who now wants to establish practice necessarily must go to the original experience of the activity of educating in order to build on the source of the lesson. While a parent educates his child he is involved in indicating certain things to him, explaining, making connections, drawing conclusions, including the demands that arise in assignments for a child to interpret, etc. In the activity of educating a parent covers the entire width and even depth of what we understand by a “lesson”. But he does this spontaneously when a child’s actions require specific (educative) intervention by the parent until he is satisfied with the quality of his child’s actions (the quality of the educative effect).

In addition, the way a parent acts in an educative situation is mainly grounded in his knowledge of his child and his abilities that he is intuitively attuned to. It is in this sense that we say that a parent’s teaching in an educative situation is naïve, because by the nature of things few parents have made a study of pedagogics and their children nevertheless are educated well.

However, a teacher cannot just spontaneously give a lesson (i.e. professional spontaneity cannot be characteristic of the practice in a classroom); he must present his lessons at set times and places for particular children and in terms of particular contents. This implies that where a parent’s teaching is spontaneous, a teacher’s is planned. This planning of a lesson also is not possible along purely intuitive lines (although it is true that a good teacher has a refined intuition). A teacher has always studied both pedagogics and didactics before he is allowed to teach professionally.

In light of the above and by way of a summary, the lesson structure cannot be sought in any area other than the original experience of educating. Now, if a teacher looks at the everyday practice of educating in order to try to unravel the source of the lesson structure, what is it that he sees in this educative situation? In other words, what is it in the original educative situation that provides the fundamental facts or grounds from which to restructure the lesson structure?

3. THE PRIMARY FACTS THAT THE ORIGINAL EXPERIENCE OF EDUCATING PROVIDES TO THE LESSON STRUCTURE

We know that a large number of details and particulars concerning the educative practice in the home make it a complex situation to describe accurately. However, there are aspects of this original situation that appear universally; that is, they are the same for all educative activities for all people. Hence, one can provisionally set aside all incidental details in order to concentrate only on the essences of the educative activity, insofar as they concern teaching and, thus, the lesson structure.

Each educative activity occurs in terms of *contents*. These contents include such things as values, norms, morals, customs, manners, attitudes, etc. and all are a direct reflection of and benefit to the life- and world-view of the adults (parents). Parents decide on the contents in the sense that, from the totality of reality, they choose certain contents and arrange them into a particular hierarchy of values according to their own life- and world-view. These contents chosen, in the first place, serve as a means for elucidating a parent's life- and -world-view. However, it must be noted that these contents do not allow educating to "occur"; they must be taught. Indeed, educating occurs in terms of contents simply because a parent cannot educate a child in terms of nothing.

It is a parent who allows educating to occur. Although the quality of a child's behavior in a particular situation appeals to a parent to intervene, it is a parent who takes the initiative in educating. He recognizes his child's educative distress in that he behaves inadequately; it is an activity that, in a parent's judgment (on the basis of his life- and world-view) does not meet the demands of

propriety. This means that every educative activity must have both an *educative aim* and an *educative course*. The coherence between the educative aim and its course assumes a certain relationship between parent and child. This relationship is broadly described as educative support or aid a parent offers his child so that the latter's lifestyle can change. This change is an educative effect. Where there is not an adequate educative effect, a parent repeats the educating until his child shows a more responsible and accountable relationship to reality in his actions. A parent certainly does not want his child to be considered "uneducated".

In the original experience of educating, there are especially two aspects that are particularly important for teaching and that already have been mentioned, namely *contents* and *form* in which a child's change in lifestyle is cast. A parent carefully chooses the contents he is going to use as means for giving a particular form to his child's lifestyle. It is true that one can teach a child to tell lies and to threaten, but this would not meet the demands of propriety so fundamental to all educative aims. The contents are chosen in accordance with accountable life- and world-view criteria because they also are the means by which a child must eventually make independent choices and decisions outside of an educative situation. In this respect, the contents serve as means for giving form to a particular lifestyle.

The educative aim mentioned above is thus directed to bringing about a child's forming; a child's lifestyle has to take on a specific *form* that must be in accord with the parent's educative aim. Apart from this, the educative activity has a course that can be recognized by its form. This course is characterized by communication: the parent speaks and the child listens; the parent indicates and the child observes; the parent gives assignments that the child carries out; the parent plays for and with the child so later he can play by himself; the parent makes use of examples so that the child can learn to deal with complex structures, etc. Thus the parent and child are in communication with each other about the contents.

In this respect, the course of educating has just as much impact as the contents and form in changing a child's lifestyle. This course also provides information for our understanding of the structure of

teaching that occurs in an educative situation. They are nodal points or foundation stones, as it were, of our understanding of teaching because without insight into the relationships among the form, contents and course of the educative situation, their significance for teaching (and, therefore, also for the lesson structure) cannot be understood.

In summary, a penetration of the original experience of educating provides a teacher with the following beacons in terms of which he can better understand teaching: an *educative aim* that is the basis for a teaching aim; the *form* in which a child's change in lifestyle must be cast, as well as the form of the course of educating that, for the educator, makes the form of the lesson accessible; and the *contents* of educating that provide for the choice of teaching contents.

These three aspects (aim, form and contents) must be examined more closely before their possibilities for educative teaching activities can be placed in view. The reason is that the aim, form and contents provide the meaning, the actualization and the themes of teaching while functionalizing (implementing) them defines the course of a lesson (i.e., the phases of a lesson).

3.1 The teaching aim

It is important to be clear about the concept "teaching" because an explication of the teaching aim and everything related to it necessarily is grounded in an insight into the essence of teaching. The word teach is derived from "taecan" (Old English) that means to show. In everyday usage "teach" also means to direct; to impart knowledge or art to; to guide the studies of; to exhibit so as to impress upon the mind; to accustom; to counsel. These derivatives emphasize the activity of the teacher. The German word *Unterricht*, on the other hand, contains both the teaching and learning activities of which a teaching situation is essentially composed. The first part of the word, *unter*, means "together" and *richt* means "to show". Therefore, the concept *Unterricht* literally means "to show together". The adult shows or indicates the path a child is to take to eventually reach adulthood, but he does this in close conjunction with a child's will and desire to become an adult himself. The way

adulthood can be attained is revealed by the learning contents. This means that a teacher and a child are both involved in the learning contents in a teaching situation.

A parent teaches his child with the definite aim in view of helping and supporting him to eventually become an adult. The child responds to this appeal by learning because he wants to be grown-up himself. A child wants to, is able to and ought to become adult and this is actually a precondition for teaching to occur. The fact that a child should learn in every teaching situation gives rise to the expectation that each teaching situation will have a learning aim. This means that a teacher must include a teaching aim in his preparation and that it must be directed at the children's learning activities. It is in this sense that the teaching aim initiates the event that makes the learning aim possible. In other words, the lesson aim initiates and directs the teaching activity in such a way that realizing the learning aim is possible; the lesson aim is viewed as the narrower concept because attaining the learning aim reaches further and really describes the learning effect of the teaching.

As noted above there is a **teaching aim** that an adult has in mind and that he tries to realize in the teaching situation, the ultimate aim of which is a child's adulthood. This aim involves the responsibility the teacher takes for the entire planning of the teaching situation. This teaching aim is differentiated into a lesson and a learning aim. The **lesson aim** typifies the role that the teacher takes in so far as this concerns the presentation of teaching contents. The **learning aim** refers to the role that the children are going to take in order to bring about real learning (or teaching) results. A student teacher must understand that the teaching contents join the lesson and learning aims together and, therefore, that the lesson aim, by means of contents, enables a child to achieve the learning aim.

It also is so that because a teacher has an aim for the lesson situation that he anticipates in his preparation of it, he must be able to account for the way the children will realize the learning aim with his guidance and support. This means that his activities in the classroom must, as far as possible, guarantee that the children will learn. In addition, a teacher's lesson aim must flow into a learning

aim; this indicates a direct relationship between the lesson- and learning-aim and contents. Consequently, the purpose of the following section is to further explain the relationship between the teaching aim (i.e., lesson and learning aims) and the learning contents.

3.2 The relationship between teaching aim and learning contents

Learning contents have always been of particular importance for didactics. Mainly the emphasis has fallen on a teacher's relationship to the learning contents having enjoyed attention in the sense that if a teacher has a thorough command of them and if he can explain, order, systematize, etc. and interpret them at the level of a child's understanding and readiness then the idea is that satisfactory teaching will result. These aspects of a teacher's role are extremely important in a lesson situation.

As far as learning contents are concerned, a teacher does not have much choice regarding the themes he is to teach because they are prescribed in the form of the syllabus or scheme of work he is given. But this does not exonerate him from the teaching responsibility to choose the specific contents to be taught in a lesson. The over-emphasis of learning contents in traditional didactics can be attributed to the fact that the point of departure of such a theory is the lesson situation in the school. With this, the equilibrium between form and contents, as exists in the original experience of educating, is overlooked.

In addition to being able to account for the form of his lesson, a teacher's primary responsibility regarding learning contents is to mobilize every possibility to unlock their *meaning or sense* for a child. He must explain and interpret their meaning so a child can understand these contents and make them his own.

Discovering and understanding the meaning of the contents is a child's primary learning task. A child himself must discover the meaning that is inherent to the contents a teacher presents. This means that a teacher and a child cannot treat the contents arbitrarily. Where this happens, a teacher will not be able to

account for his teaching and the child will not display the motivation to learn that will result in adequate learning. This is why a teacher's task and responsibility to expose the inherent meaning of the contents for a child are so important. This also means that everything that occurs in a lesson situation must be provided for in a teacher's preparation with the primary aim that the inherent meaning of the contents will be exposed. This aspect of the relationship between the teaching aim and the learning contents emphasizes a teacher's responsibility. If he does not know what the teaching situation is all about, a child cannot discover the meaning of the contents by himself.

As far as the role of a child in a lesson situation with respect to the contents, a few aspects have been noted above. A child's role is eventually explicated more completely when the didactic modalities are discussed later in this chapter and it also is attended to when the learning aim is considered.

If one analyzes the activities of a teacher, it is clear that he must be able to account for the following regarding the learning contents:

- reducing the contents;
- formulating the problem that will give direction to the learning activity; and
- ordering the contents.

3.3 Reducing the contents

Reducing means turning back to an original or primary matter where opinions, deductions, standpoints, etc. are provisionally put aside. In other words, reducing means to simplify something to its most elementary form (See discussion of the elementals in Chapter 5); it means to simplify contents in order to identify and expose what is essential. For example, one could reduce an equation in mathematics to its simplest form or reduce a complex phenomenon to its components. In a lesson, reducing is concerned with contents and in this context it is a teacher's responsibility to reduce them to their essentials that expose and explain their meaning.

Reducing is, as it were, a purification of the facts so that the elementals, that carry or clarify their meanings for a child, are all

that are left. The understanding and insight a teacher aims for are only possible if a child understands these clarifying elementals. Therefore, a teacher must be able to differentiate between the essentials and non-essentials of the learning contents because reducing them is of particular significance for realizing the learning aim.

Reducing the contents implies fundamental subject matter knowledge by a teacher and for the following reasons:

- The learning contents are part of a child's life world because they originate in the contents of living. All learning contents encompass or include the whole of the contents of living, for instance, from the concrete to the abstract (irrespective of the teaching subject) and all knowledge has a historical origin. In other words, all knowledge has a scientific discovery and description. These contents appear as school subjects in the lesson situation. A teacher, in fact, is in a position to make the first scientific description of reality as far as a child is concerned. Ordering the life world in school subjects enables a teacher to explain phenomena, happenings and perceptions to a child that he is aware of.
- Explaining (understanding) a phenomenon is vested in its essences (that only can be brought to the surface by careful and rigorous analysis). In this way the essentials are identified and the non-essentials ignored because they do not contribute to understanding the phenomenon. They are superfluous in a teaching situation because they obscure rather than clarify the contents. A good explanation does not rest on many facts but on relevant ones. A teacher can easily jeopardize positive learning results if he tries to teach too many facts in one lesson. Analyzing the matter (contents) in accordance with the learning aim will indicate which facts will carry a child's insight and understanding. Therefore, a teacher must continually ask: What must a child know to really get to the root of the matter? This implies fundamental subject matter knowledge because a teacher must take up the essences of the matter not only in his lesson structure but

the course or sequence of a lesson must be planned such that his pupils can be guided to a fundamental mastery of the contents.

- The fact that the contents already appeared somewhere in a child's life world and the fact that a teacher must reduce them to their essences are preconditions for giving direction to a child's learning activity. However, before the learning can bear fruit a teacher must express these essences or basic facts in words. His formulations give the contents a meaningful, comprehensive and clear image because they are described in language that is understandable to children of their level of development. Knowledge (as laws, points, of view, judgments, etc.) is usually the result of scientific work that a child will not understand if explained in scientific terminology. Language that is beyond a child's grasp at a certain level of development obscures the contents and confuses him. This means that a teacher unlocks reality for the sake of the pupils and in order to place the contents within their reach he must use the language of the children. This responsibility makes certain demands of a teacher's mobility in the subject because without it he simply cannot formulate clearly, with the result that his teaching is often in vain.

In addition to these three fundamental aspects of reducing the learning contents with the aim of realizing the lesson aim that must culminate in the learning aim, there are other aspects (mentioned previously) that must be taken into account. The essences of the contents resulting from their reduction are not isolated from each other but constitute a logical, chronological or interrelated whole that determines the solution of the whole of the lesson problem. The intertwining of the essences into an interconnected whole does not occur by itself but must be planned by a teacher in accordance with his pupils' potentialities. Teaching the relationships between the essences establishes the line of reasoning or insight and is done in such a manner that a child is involved with a teacher in relating or structuring the essences in order to find a solution to the lesson problem.

The essences and their interrelationships must still be interpreted in the sense that a teacher must place them in related contexts, he must explain them or make certain pronouncements regarding their nature, importance and meaning. The inherent meanings of the learning contents acquire proper form in his interpretations. This aspect is one of the most important considerations in reducing the learning contents without which a lesson structure cannot be established.

4. STATING THE PROBLEM

In the usual classroom practice a teacher merely announces the theme of the lesson as it is prescribed in his scheme of work. This practice cannot progress meaningfully from a lesson aim, via reducing the contents, to a learning aim and eventually to positive or significant learning results because the learning contents are not necessarily a meaningful and ordered whole in a child's life world. Consequently, he cannot give much meaning to a lesson theme that is merely announced.

Within the scheme of work, as a refinement of the syllabus, there are many themes. These themes can have a certain order in the sense that a child must first understand a previous theme before moving to the next. This structure or order often leads a teacher astray in that he easily assumes that a child has the previous themes at his fingertips and that the mere announcement of a new theme will evoke burning enthusiasm from a child. Nothing is further from the truth. Experience and scientific research indicate that learning occurs most effectively when a child is led to experience a very definite problem. Therefore, it is a teacher's task to present a problem to a child that is inherent to the theme but in accord with his level of development. In this way, he can ensure that a child experiences the problem as worthy of being solved.

A theme, as such, does not announce or present a problem. A teacher must make the theme a problem. The idea is not to pose a problem for every lesson. In the primary classes, where learning contents are offered in small units, a problem for every lesson is feasible. In the secondary classes it often is the case that the problem is solved only after a series of classes covering lessons. As

far as this aspect is concerned, there also is a difference from subject to subject. Hence, the number of problems presented also depends on the nature of the subject.

In addition to the various possibilities mentioned, it is generally accepted that a lesson or series of lessons cannot function as a unity without a problem and that positive learning effects also cannot be achieved without a lesson problem. The essence of stating a problem is that a teacher places, integrates it into a child's world of meaning. To be able to do this implies ingenuity, insight, fundamental subject matter knowledge, the ability to reduce the contents, the ability to interpret and synthesize them, and, last but not least, knowledge of the child on the part of a teacher. Stating a problem awakens a child's learning intention (directedness to learning). Explaining contents (that now function as finding a solution to a problem) focuses the learning intention directly on meaningful learning results in order to ensure that the progression from the lesson aim to the learning aim occurs.

As in the case of the essences and their interrelationships, a teacher must formulate a problem in such a way that it falls within the linguistic and cognitive potentialities of his pupils. A problem must function meaningfully, grippingly and questioningly in a teaching situation. It must awaken a questioning attitude in the pupils. Without being involved in the contents by means of a problem, in effect a child is isolated from them. Hence, a teacher must carefully consider and plan this aspect of his lesson because creating a questioning attitude by stating a problem is a precondition for a child's meaningful participation in the exposition of the contents.

5. ORDERING

Because ordering contents has been treated comprehensively in Chapter 5, only those aspects that must be emphasized in a lesson structure are discussed here. New or unknown contents really are chaotic for a child because for him they are not yet ordered. Thus, a teacher's task is to order the unknown contents for a child in such a way that they eventually can become permanent possessions of his.

The meaning of the contents and the meaning of ordering are closely related to each other. This means that the forms of ordering are vested in the unique nature of the learning contents; e.g., contents that are directly available in the life world require a different ordering than contents that are more abstract. However, it is not only the nature of the contents that influences the form of ordering but so will a child's level of development and a teacher's learning aim and the way he plans to present the contents. Since ordering is also dealt with comprehensively later in this chapter, here it is sufficient to indicate that ordering already arises in the first association between teacher and pupil; a teacher must keep this in mind and always pay close attention to the problem of ordering otherwise his teaching cannot eliminate the chaos. In the following chapter on preparing a lesson, it is indicated how these contributing aspects of ordering the learning material speak to a teacher and allow him to be able to account for his practice.

At this stage it is once again important for a student teacher to orient himself with respect to the way an analysis of the original experience of educating culminates in a lesson structure. This analysis emphasizes the importance of conscious aims in teaching, reducing the contents to their essences, stating a problem to awaken and direct a child's learning intention and ordering the contents in order to deal with them responsibly. All of these matters must be included in a lesson structure and serve as the basis for a teacher's planning.

Individually and collectively these aspects provide the meaning of and the conditions for effective teaching. However, they are not enough to ensure accountable teaching because a teacher also must be able to account for the lesson form in which he is going to cast the lesson event.

6. LESSON FORM

Didactic ground-forms

A child is always taught and educated by means of contents. Contents are not always directly available and therefore a teacher must consider various means for placing the absent reality within a

child's field of vision. The activity of teaching is brought into motion the moment contents are introduced. In this sense teaching is directly concerned with introducing contents, but in such a way that a child will gladly and willingly participate in the situation. This means that the contents must be presented in such a way that a child will become involved in a lesson by learning. The question in this context is: In what ways is it possible for a teacher to introduce the teaching contents in a classroom to ensure that the children will become involved and learn?

The most obvious and certainly the best known way is by means of language. The symbolic, contained in language, enables a teacher to place meanings (symbols) within a child's grasp by means of **conversation**. In other words, by means of language, absent reality, that so often is the learning contents, can be made present. This means a teacher can tell the children about the contents. If the contents are concretely available, allowing its manipulation, a teacher can guide the children to **play** with the objects in order to become familiar with them. It is also possible for a teacher to help the children become familiar with certain contents by means of carefully and clearly formulated **assignments**, e.g., to make something, to do something, to carry out an activity, etc. If it is possible, a teacher can bring an object into a classroom, e.g., a model, in order for it to serve as an **example** of the teaching contents. A teacher knows full well how excited a child can become if he is directly confronted with an object!

Conversation, play, giving assignments and using examples were previously mentioned as the ways that a teacher uses to allow a child to become involved with the contents. These ways have been fully described in Chapter 4 (and Chapter 6) as didactic ground-forms. They originate in everyday human forms of living. In the original experience of educating we see that a parent uses these forms of living to educate his child: he converses with him, tells him things, asks him about his experiences, allows him to talk about his own experiences; he plays with him, and helps children to play with one another, he demonstrates certain play activities to his child (here one thinks of traditional folk dances that are taught in this way); a parent also gives his child certain assignments, he insists on a certain routine in carrying out tasks; he makes use of examples,

models, samples, specimens, etc. in order to explain things. (A father who helps his son make a kite is, in fact, involved in the basic principles of aerodynamics).

When we penetrate the original experience of educating we notice that a parent integrates these forms of aiding and supporting with the forms in which his child's learning activities are expressed:

Forms in which a child's learning activities are expressed

Observing
Playing
Talking
Imitating
Fantasizing
Working
Repeating

The ways a parent aids and assists his child

Pointing out, indicating
Playing to, playing with
Prompting
Demonstrating
Narrating, telling
Assigning, instructing
Repeating

We can classify the forms in which a child's learning activities are expressed and the ways a parent aids and assists his child under the four didactic ground-forms of play, conversation, example and assignment.

For a teacher, the above implies that he must present the learning contents in such a way that a lesson situation results in effective learning. Effective learning is a result of the harmony established in a lesson situation between the contents (including their nature) and the most suitable forms that can be used to present them. The form is the basis of the teaching methods a teacher uses to unlock or present the contents to a child, taking his level of readiness into account. The form must place the contents in a child's grasp in such a way that they awaken and direct his learning intention. Therefore, the form of a lesson is just as important as the contents.

In addition to contents, a teacher also must prepare the form of a lesson. In addition to the contents, the form is also part of a teacher's lesson aim. This aspect of the lesson structure will

possibly become clearer in the following chapter that deals with the problem of preparing a lesson.

This very brief description of the lesson form should be read along with Chapter 4 where a comprehensive discussion of the didactic ground-forms is given as well as their methodological possibilities. Besides the didactic ground-forms, it is of vital importance whether a teacher's point of departure is particular data in order to arrive at general conclusions or the reverse. A point of departure from the general to the particular ((deduction) gives a lesson a different form than does a point of departure from the particular to the general (inductive). Since a teacher must choose either an inductive or a deductive approach, they deserve closer examination.

7. THE INDUCTIVE AND DEDUCTIVE APPROACH

In contemporary teaching practice, there is a close connection between the inductive and deductive approaches and certain forms of teaching such as the exemplary. Exemplary teaching is discussed separately in Chapter 12. In this context, it is important to mention that the knowledge explosion (especially technological knowledge) must also be taken up and reflected in the school. Encyclopedic knowledge is impossible: a child is simply not capable of understanding or remembering everything the knowledge explosion has made available. For this reason the didactic premise and aim is understanding rather than memorizing. In order to achieve this aim, a teacher looks for examples (that, in themselves, are valid for the matter they represent) to enable a child to acquire insight into the totality of the matter.

A teacher can choose a particular example or examples to represent something general and then, together with the children, reduce the example to establish or disclose its inherent essences, fundamental reality, general rule or general law. A law, rule or essences appear through analyzing different examples. This kind of lesson is inductive by nature. The inductive approach, then, puts a lesson in motion by examining one or several examples in order to arrive at a general conclusion. In a lesson situation, this approach manifests itself when a teacher investigates an on hand example with the

children; they analyze and reduce it to eventually synthesize its essences into a conclusion, law or rule.

Where a general principle, rule, law, theorem, proposition, hypothesis, etc. is taken as the point of departure and is explained and applied, a teacher is proceeding deductively. Thus, the deductive approach is the opposite of the inductive method. The important difference is that in the deductive approach, the point of departure is a conclusion, deduction, theorem, definition or rule that is examined by means of particular examples that serve as illustrations of the general starting point.

The inductive and deductive are in fact organizational procedures or schemes used by a teacher in the design and course of his lesson for the realization of insight by the children. In this respect, they are more than methods and they qualify as methodological principles. The deductive approach aims at applying general principles to a number of data and making correct deductions. The inductive approach departs from a specific experiential fact that, after it is examined thoroughly, eventually leads to establishing a general concept or rule.

It is important for a teacher to understand that the inductive or deductive approach cannot be chosen arbitrarily; the choice of methodological principle must be in accordance with the nature of the contents and the level of a child's readiness. Where a child has not yet developed to the level of abstract thinking, insight will probably be much more effective if conclusions are drawn from an example or number of examples, i.e., if the approach is inductive.

The inductive approach is more functional in arriving at insight into certain contents than the deductive approach. The deductive approach often has the danger that a child simply memorizes the theorem, law or rule. The inductive approach has the advantage that it coincides with meaningful analysis that leads to self-discovery, i.e., a child is led to think for himself and to formulate his findings by himself. Especially in language, literature and music teaching, the inductive approach has a greater advantage than the deductive, especially when unlocking or teaching new contents.

However, the inductive approach is not always functional in establishing insights in trigonometry because all rules/theorems of trigonometry are deduced from fundamental axioms. In the natural sciences one can distinguish between so-called inductive subjects that have open systems where rules, laws, etc. are formed by induction. Good examples are physics, biology, chemistry and geography. Other subjects have a more deductive character in terms of the more closed system they represent and in which the rules are arbitrary or definitions are made or conclusions are drawn from other rules, e.g., mathematics and logic.

As far as the humanities are concerned (that in contrast to the natural sciences are basically multi-formed and diverse), the choice of an inductive or deductive approach is based on the question of which one of the two methodological principles will ensure the most effective learning activities.

The inductive methodological principle is by its nature a slower approach, making a slower teaching tempo mandatory. It guarantees a permanent grasp of the contents and entails a wide variety of modes of learning. A younger child experiences greater security in this approach because his learning activities depart from the concrete objects of his everyday surroundings. In the higher classes, the inductive approach is usually used only to introduce a new theme because the scope of the syllabus demands a quicker tempo.

In contrast, the deductive approach has a quicker tempo because already established insights are implemented. The security that is at the foundation of a child's learning activity is established by a teacher's control of the quality of a child's insight and conclusions he draws. The effective use of one or both of these methodological principles, even their interchange within the same lesson, depends on a teacher's experience, his subject knowledge, the readiness and tempo of his pupils and the didactic ground-form(s) a teacher has chosen for his lesson.

If a teacher chooses the example as didactic ground-form, he will necessarily have to use the inductive principle. It is clear that the didactic ground-forms and their related teaching methods, as well as

the methodological principles of induction and deduction will give a particular form to a lesson or series of lessons. The principles in terms of which the learning contents are arranged or ordered in a lesson will also influence its form and thus deserves closer attention.

8. PRINCIPLES FOR ARRANGING OR ORDERING CONTENTS

It has been mentioned that learning contents are primary aspects of a lesson that a teacher must account for in preparing his lesson. He takes the particular lesson theme from his work scheme that establishes systematically the contents of a particular subject for a year for particular pupils on a certain level of readiness and type of school. His task is to make the particular theme understandable for each child in his class.

In examining the specific contents, a teacher seeks to establish their essences, key concepts, possible problems that could hinder insight, different points of view on the contents in order to anticipate the children's problems, etc.

A teacher knows that a child's learning activity is brought into motion and given direction by a problem. Therefore, he sifts and evaluates the essences of the contents in terms of a child's prior knowledge for possibilities and opportunities to present the contents by means of a problem. He also realizes that the contents are unknown or strange to the children in the sense that they are not yet arranged or ordered which restricts their insight into and overview of the contents. The implication is that the contents must be arranged or ordered by a teacher in such a way that the children can follow and understand his explanations.

If the contents are not ordered in accordance with a child's level of readiness they easily lose direction. Well-ordered contents ensure a steadiness of direction and security in a child's exploration of the contents. Apart from a child's readiness, the nature and structure of a subject influences the ordering of the learning material because each subject has its own intrinsic ordering.

The primary task of a teacher is to guide the children so that they experience the contents as meaningful in that they can attribute

their own meaning to them. For this reason it is important for a teacher to know whether the children are capable of abstract thinking. Are the steps to be followed to gain authentic insight gradual or can these children manage a steeper gradient by themselves? Can they stay only on level or smooth ground and reach the heights only by roundabout and devious routes? These questions lead a teacher to choose certain didactic ground-forms that should enable him to order the contents in such a way that the children will achieve what they ought to.

The question now is: How can learning material be ordered? If we consider subjects and themes that occur in time (history, religious instruction, language history) then a **chronological** order is apparent: an event that took place previously must first be dealt with before a subsequent one can be understood. Certain themes in geography (e.g., geomorphology, aspects of climatology and economic geography) are ordered chronologically in order to emphasize and maintain the principle of causality that is basic to them.

Contemporary history teaching has a tendency to take a well-known modern situation as the point of departure in order to identify an equivalent situation in history: the aim is to better understand and evaluate historical occurrences. This kind of ordering is known as the principle of **symbiotic** ordering (sym=with, bios=live). Biology, physics, chemistry and subjects where skill is of primary importance often use this principle of ordering. The didactic ground-forms of play and example seem well suited to this principle.

Where, however, an analysis must be made of the factors responsible for an historical event, the aim of the analysis is to arrive at a synthesis that implies a building up of ideas. This is referred to as **linear** ordering: the relevant material is examined on one level and along one line of reasoning. Example, as a didactic ground-form, is used effectively with this principle of ordering. Play, as didactic ground-form, is equally important here because it is the basis of the experiment that figures prominently in linear ordering. Although the didactic ground-forms of example and play are clearly correlated with the chronological and linear principles of ordering, the contents also can be effectively analyzed and

synthesized by using assignments and conversation, as didactic ground-forms.

In addition to the chronological and linear principles of ordering, there are the **divergent**, **spiral** and **concentric** principles. These principles were discussed briefly in Chapter 4. The divergent principle has as its point of departure a chosen central point that then is systematically extended to relevant themes. Divergent ordering is especially important in tasks and projects and is well illustrated by a wheel with its hub and spokes.

The spiral and concentric principles of ordering are closely related in the sense that concentric ordering is a principle used in constructing a curriculum and it means that the same contents arise in subsequent years of study, but each time they are broader and deeper in scope and difficulty [while spiral ordering really is the way of ordering the learning contents that allows the concentric to occur]. By means of spiral ordering the children are guided from the most elementary to the most difficult and complex contents. In mathematics teaching spiral ordering actually reflects the nature of this subject.

In penetrating the form of a lesson situation, there were successive discussions of the didactic ground-forms, the methodological principles and the principles of ordering the learning material. The ways these aspects determine the form of a lesson were also discussed. An aspect that was suggested but not clarified is how the methods of teaching give particular form to a lesson.

9. TEACHING METHODS

The correlations among the didactic ground-forms, the methodological principles and ordering principles were emphasized above. Furthermore, these correlations and especially the emphasis that these various aspects are given depend on the nature of the contents and the readiness of the children to be taught. Teaching methods must also be viewed in this context.

What is important here is that the nature of the contents can influence the preference for a ground-form and a method or

combination of methods for unlocking or presenting the contents. If one examines the ground-forms and their methodological possibilities, one notices a natural relationship between them that is briefly summarized as follows:

Ground-form	Teaching method
Play	Experimenting Demonstrating Questioning and answering Drilling (exercising) Free activity
Conversation	Telling, narrating Questioning and answering Demonstrating Free activity Class conversation Learning conversation
Assignment	Textbook Drilling (exercising) Experimenting Telling, narrating Questioning and answering Demonstrating
Example	Experimenting Textbook Demonstrating Questioning and answering Drilling (exercising)

However, the practice of teaching shows that any ground-form can be the basis of a certain teaching situation by means of any teaching method or combination of methods. The basic consideration that determines the choice of ground-form and method(s) is the nature of the contents, the readiness of the child, the lesson and learning aims and the time available to complete the lesson. These factors underlie the choice of specific methods. The implication is that a teacher chooses certain methods or combinations of methods to

serve as ways to ensure eventual authentic learning by a child. A teacher's mobility and flexibility in a teaching situation are also obvious in the ways he changes methods to achieve meaningful learning results. Choosing, applying and accounting for ground-forms, methodological principles, principles of ordering the contents as well as the teaching methods used guarantee a teacher's creativity and originality. They provide him with his own style of teaching that should not be jeopardized by any departmental or official prescriptive measure.

A question that can be asked at this stage is: Does the uniqueness of each teaching situation arise (because each lesson is planned for particular children with particular contents) from the fact that there is no correspondence between different lessons? This question can also be stated differently: Irrespective of the uniqueness of every lesson, is there no possibility that lessons can be classified or arranged into similar lesson types? The idea here is not to establish a lesson typology but, if there are lesson types, a teacher must be aware of them to be able to account for his own teaching practice.

10. TYPES OF LESSONS

Once again it is important to stress that a lesson situation reveals itself in terms of its structure. The structures of a didactic situation are characterized by reducing the contents, stating and solving a problem, using teaching methods, employing teaching and learning aids, formulating lesson and learning aims, etc. The way these structural aspects are assembled provides a lesson with a certain form that when present in a number of similar lessons can be described as a lesson type. Briefly, a lesson type is the result of the particular relationships among the teaching aim (more specifically, the learning aim), the didactic principles and the ways of learning.

Lesson types commonly identified are appreciation lessons, explicatory (to make explicit, to explain) lessons, experimentation lessons, demonstration lessons and drill or exercise lessons. Lesson types must not be confused with model lessons which itself is a particular type. It also is important to note that pure lesson types do not exist in the reality of teaching. In one way or another, in the course or progression of a lesson, each lesson type contains aspects

of other types. A lesson type is identified by a certain profile of the form of its structure.

The question now is: How is a lesson type determined by the relationships among the lesson and learning aims, the didactic principles and the modes of learning?

There is a close relationship between the lesson and learning aims and the types of lesson. To illustrate: if the **lesson aim** is that a child will eventually appreciate something it is obvious that the lesson will basically be an *appreciation* lesson; if he must be able to carry out an experiment we speak of an *experimentation* lesson; if he must exhibit certain skills we speak of a *demonstration* lesson; if he must acquire insight into new concepts this is an *explicatory* lesson; if he must consolidate particular acquired insights this is *drill or exercise* lesson.

The ways the **learning aim** can be attained are usually differentiated in the sense that without *observing* a structure, obviously, little understanding of it is possible; without *exercising* [applying] a concept a child's grasp of it is easily lost; without *demonstrating*, a child's attempts remain undirected and consequently he cannot assess his own achievements in terms of what his teacher expects; without *observing* appreciation remains diffuse.

A single lesson, therefore, generally consists of a number of lesson types but where one type is given more prominence by a teacher's emphasis. Authentic learning results are realized by appreciation that enables a child to transcend the immediacy of the unlocked contents. A child appreciates a certain structure, e.g., music, poetry, literature, Biblical history, etc. However, the structure must be understood otherwise his wondering cannot be raised to the level of admiration. Appreciation acquires meaning for a child to the extent that the structure stands out more prominently as a result of his insight into it; the deeper the understanding, the deeper the appreciation. Hence, appreciation must be refined and directed by observation. In this way, an appreciation lesson goes hand in hand with an explication, a demonstration, an experimentation and a drill lesson, etc.

This means that the type that a lesson is depends on the emphasis given to the aspects of its form. A predominantly appreciative lesson appears differently from a demonstration lesson because a teacher emphasizes different aspects of form. Certain modes of learning are more prominent, the control of insight progresses differently and even the class organization can be different.

The lesson type can also be recognized by the contents and the methodological approach during its course. In an appreciation lesson, that traditionally deals more with esthetic-normative contents, the essences are less rigid and more humane and are generally taught by means of conversation as a ground-form and its variations. In an explicatory lesson, that generally deals with fixed, uniform contents, what is central are concepts and their interrelationships and they are taught by means of direct observation, analysis, structuring and synthesis. In an experimentation lesson the emphasis is on understanding the chronological, necessary relationship between certain factors and consequences (like causes and effects). Here relationships and syntheses are central and usually includes subject-methodology (in accordance with a child's readiness). A demonstration lesson deals mainly with a specific series of activities where their fluent unity (carried by insight) is central and there is unlocking through directed observation as appreciation. In a drill or exercise lesson the aim is to consolidate already acquired insights and concepts, integrate them into a particular meaningful relationship, place activities in the correct order and ensure mobile activity. To achieve these aims, certain methods of exercise are used extensively.

As already mentioned in passing there is a close relationship between types of lessons and a child's modes of learning. In appreciation the emphasis is on a child's sensing or becoming aware; he notices something out of the ordinary. He senses that a particular content has intrinsic meaning that, at this stage, he has not yet specified. This arouses his wonder. In sensing a child first becomes acquainted with a matter; it is an affective acquaintance where the object (content) is still diffuse and unordered. Sensing or becoming aware is characterized by a gestalt- or totality-view; it is a global view of the totality of something unknown, strange or

unexpected. Here the viewing moves on a more pathic-affective level where feelings are more prominent than rational explanations.

In demonstration and explication, perceiving or observing is the means for intensive exploration. A child mobilizes his observing to order and classify objects by type and quality so that he can make comprehensive statements about the matter.

Perceiving or observing is essentially reduction; it is an analytic activity aimed at identifying the constants and essences of the contents. In observing, a child seeks fixed points by which his thinking can be established and directed.

Thinking is prominently given direction in an explicatory lesson. By appreciating, new and disconnected concepts are internalized but they must be brought into meaningful relief by thinking. Thinking progresses on a conceptual level where a child applies language structures, meaningful relationships and methods for solving problems to make an eventual synthesis possible of the new and disconnected concepts. Here there is even a distinction between productive and reproductive thinking (see below).

In drill or exercise lessons, a child's remembering is the most prominent mode of learning. Remembering implies recalling already acquired insights and structures of thought. This involves mobilizing already acquired activity structures and is directed to integrating new meaningful relationships into his prior knowledge.

Because the modes of learning impart a specific quality and procedure to lesson types, it is obvious that there is a close relationship between teaching and learning aids and types of lessons. Teaching aids that emphasize the structure, form, order or dynamism of the contents as a whole are well suited to sensing or becoming aware as a mode of learning. In this context, pictures, a representation or a moving or colored model are important. However, there also must be something problematic present in the total view; at the same time it must indicate direction for the next phase of learning (perceiving, observing) by indicating certain aims that will later contribute to building up a synthesis to a final gestalt. Apart from the quality, the quantity of teaching aids is equally

important. A child must not be smothered by an unnecessary amount of audiovisual materials. If this happens, he can easily be emotionally (pathically) flooded such that his eventual rational grasp can be hindered.

When perceiving, a child establishes fixed points in terms of what he already knows. This requires that he distance himself from his earlier affective disposition and view the contents more objectively. In doing so, he surmounts the limitations of hearsay and pre-scientific conceptions. Here the actual teaching object, as teaching aid, is of considerable importance in helping a child reach the desired cognitive level. One thinks here of the microscope, the magnifying glass, the working model, the sample etc. From direct and refined observation, a child establishes his own image of the contents. This later gives him the necessary security to try to reach the next level of competence.

As far as thinking as a mode of learning is concerned, one can differentiate between teaching aids that promote reproductive (insight-applying) and productive (insight-making) thinking. Productive thinking can only be guided by the indirect function of teaching aids. For reproductive thinking, aids are used that call to mind prior knowledge as conceptions. Here slides, a film, pictures, diagrams, graphs, tables, schemes, etc. are effective because they are specifically designed or adjusted for the specific teaching situation. A child must use the aids to restructure and order the essences differently to find a solution to the problem. As far as productive thinking is concerned, a child is left to wrestle with the problem independently and at the same time to discover deficiencies in his own field of experiences. He must now be helped with supplementary knowledge and skills, but he must be continually brought back to the matter itself to look for better insight. The teaching aid only provides direction (possible ways of solution) when a child loses his way. Hence, a teacher's means of control or monitoring and support are radically important.

In a drill or exercise lesson, where a child's remembering plays the most prominent part, aids such as the blackboard, handouts, textbooks, the overhead projector, etc., are important. Because insight into what is essential has already been broken through, the

aids are aimed only at exercising the insight in new situations. As many new problems and possibilities of application as feasible must be identified, e.g., excursions, exhibitions, films, etc. At the end of a lesson or series of lessons, teaching aids can be used to evaluate a child's achievements: tasks, demonstrations, questionnaires, etc. are useful.

From the above, it is clear that a teacher must reconsider the introduction and application of aids for every phase of a lesson. This consideration is directed by the readiness of the children and the complexity and nature of the contents. In addition, it is noted that certain aids are more effective than others in supporting the different modes of learning. Therefore, it is understandable that certain teaching and learning aids will be more prominent in some types of lessons than in others.

Finally, there also is a connection between the type of lesson and the ways a child's insight and understanding are controlled or evaluated. During the evaluation phase of a lesson, a teacher must determine whether a child has achieved the learning aim (and thus the lesson aim). This means that at the end of an appreciation lesson, a teacher must establish whether a child has, in fact, reached a certain level of appreciation and, therefore, he has to structure his evaluation in such a way that the quality of appreciation can be clearly determined. The assessment of appreciation is complex because it is very personal. In an explicatory lesson, assessment revolves around the question of whether a child has gained insight into the contents and whether he can integrate the new concepts with his prior knowledge with understanding and also whether he has a new perspective on them. At the end of a demonstration lesson the question is whether a child has achieved the facility of skills necessary for understanding the essences and structures of the activity structure. In a drill or exercise lesson the question is whether he can apply his newly acquired knowledge and insights to similar problem situations.

It is clear that evaluation and assessment for different types of lessons are specific and that the essential differences appear most clearly in the evaluation phase of a lesson.

An examination of the original experience of educating also reveals the form of this human activity and, at the same time, it indicates the origin and limits of the practice of teaching. By going back to the origin of his practice a teacher can identify and account for his own practice. He also can account for the type of lesson he brings about with the knowledge that a type of lesson, in its particularity, can never be uniform or pattern-like because a child never relates to reality in simple or recipe-like ways.

In the explication of a lesson structure to this point, the contents of a lesson were mentioned only when they were relevant to its different aspects. Because it also was mentioned repeatedly that a teacher tries, in terms of the guidelines a lesson structure provides him, to establish and maintain a harmony between form and contents during the course of a lesson, it is important to examine closely the contents taught in a lesson. What was said about contents in Chapter 5 applies generally to every lesson and the following remarks about how the contents influence a lesson structure should be read with these findings in mind.

11. LESSON CONTENTS

Lesson contents assume a terrain of life that is not yet known by a child and that must eventually be mastered. The didactic activity in a school is aimed at supporting a child to go out into life. For this reason, there is a gradual movement away from everyday life contents in the home to a more formal and structured curriculum of a school. In order to remain true to life and educatively valid, the lesson contents can be nothing more than life contents, cultural inheritance and human forms of living. A simple indication of the correlation between life contents and learning contents is that a child flourishes in a learning situation and, in terms of lesson contents, into a morally responsible adult person. This implies that a child explores the human life world and even learns to live as a human being in terms of learning contents. In addition, he establishes his own position in time and space by means of these contents.

Thus, learning material involves the totality of life reality. It includes the religious, moral, social, historical, physical and esthetic

categories of reality that directly influence a child's knowledge and, therefore, also his appreciation of options and the eventual choices he makes. The learning contents can never be detached from a human being's life of values and hence the learning contents are always subject to the authority of generally accepted values. In this sense, learning contents must be normative (contain and disclose norms) in order to serve as a means to achieve the pedagogical aim of adulthood.

The totality of life reality is too comprehensive to merely be presented as contents in school. But a human being arranges or orders reality as a whole and in his ordering activities he also recognizes the inherent categorical nature of reality. That is, the differentiated nature of reality is recognized in terms of its own categories. A person's ordering of reality is really a demarcation of it into major structures that are closely related to his experiences and encounters of it. This demarcation indicates terrains, terrains that make a persons' involvement in reality possible. (See the section of Chapter 5, the construction of learning subjects, for the ways teaching contents are derived in school).

In compiling a curriculum each of these terrains must be taken into account. The primary criterion for compiling a school curriculum is the degree to which it reflects the totality of reality.

Because the various terrains of reality are coordinated with each other in the sense that, collectively, they constitute the totality of a person's involvement in reality, school subjects deduced from them are equally coordinated with each other and are equally important. This is valid for all subjects except language. Language carries all communication in a didactic situation and, consequently, it is understandable that language study is the central or focal point of a child's entire school career. The well-known statement that all teaching is language teaching should be viewed in this light.

The above is a very brief explication of the origin of learning contents and provides the primary considerations and criteria for compiling a curriculum. The curriculum is further differentiated in such a way that it provides a blueprint for all types of schools. Although [in South Africa] the curriculum is a functional plan for

realizing national educational policy concerning differentiation, each curriculum must contain the terrains of reality mentioned above. If this is not the case, there is the danger that the forming of a child will be disharmonious in the sense of being one-sided. Where this is so, a school loses its meaning of giving form to a child's existence as a precondition for him to be able to eventually respond as a proper and responsible adult in relating to reality as a whole.

Thus, a curriculum describes the scope and depth of a child's mastery of the various school subjects that in their origins include the various terrains of human involvement in reality. Hence, a curriculum has a two-fold aim: first, to lead a child to adulthood by means of the school subjects comprising the curriculum, and second, to prepare him for tertiary education and vocational training once he has mastered the contents of the school curriculum.

Because of the general nature and scope of the curriculum, a teacher cannot use it to infer specific lesson themes. Since [in South Africa] each curriculum refers to a specific type of school, e.g., pre-primary, primary, general secondary (commercial, technical, art and music, etc.) and schools concerned with exceptional children (partially sighted, partially deaf, deaf, epileptic, etc.) each curriculum is further reduced and extended to provide a syllabus (plan of action) for each school.

A syllabus describes the consecutive contents for each school subject and for each grade level of a specific type of school. Therefore it provides a certain order that at least reflects the nature of a subject as well as the level of readiness of a child. Although the ordering of the syllabi is diverse, they suggest the ordering of the contents for a particular lesson. Because a syllabus, e.g., provides the sequence and order of the contents for geography in the secondary school for children following the university entrance course of study, it is still too comprehensive for a teacher to use as a daily scheme of work.

By means of further reduction and interpretation, a class or subject teacher establishes the specific themes to be dealt with in every

teaching period for every day. A scheme of work is constructed such that the relevant themes are ordered in a certain way. Thus a scheme of work is the immediate source for the themes to be dealt with in a specific lesson or series of lessons. It includes a tabulation of the themes or topics a teacher must deal with in a specific week. In this way it is the origin of the lesson contents for a teacher's daily preparation and planning.

The announcement of a theme is necessary for a teacher to choose an example of the theme for a particular lesson or series of lessons for particular children. A teacher's criteria for choosing a particular theme are the prior knowledge of the children, their readiness, the contents to follow, the time at his disposal and the tempo according to which the contents can be taught, the simplicity of the specific example, etc. During his preparation, a teacher reduces the example he is going to teach to its essences and determines from these essences and their relationships the aims, problems, ground-forms, methodological principles, principles of ordering the contents, teaching methods, didactic principles, modes of learning, teaching aids, etc. of the lesson. In a class situation the contents become the learning task of the children, and in order to master them, they must further reduce them and arrive at their own synthesis—but always with the aid and support of a teacher.

An example of the way contents are involved in a lesson structure will clearly illustrate this matter. The curriculum of, for example, the junior secondary phase (grades 8 and 9) for general secondary teaching must provide for the mathematics-natural science orientation of a child. To achieve this aim, subjects such as physics, chemistry, mathematics, biology and geography are included in the curriculum. The description the curriculum provides, for example, for geography, will include geomorphology, economic geography, oceanography, mathematical geography but also climatology. The curriculum merely states that the climatic regions of the world must be studied generally. The syllabus for grade 9, for example, in the general secondary school reduces from the curriculum the following climatic regions of the southern hemisphere that must be taught: savannah, highveld, winter rainfall, warm desert regions, etc. During the composition of a scheme of work reduced from the syllabus, these climate regions are logically and rationally ordered

in the following manner: Week 1: Equatorial climatic regions; Week 2: Savannah climatic region; Week 3: Highveld climatic region; Week 4: Winter rainfall climatic region; etc.

When a teacher is dealing with the theme for week 4, he chooses the winter rainfall region of the South Western Cape because most of the children either know the area or have visited it. His further reduction of the contents enables him to identify the factors that cause the climatic region: latitude, ocean currents, prevailing winds, pressure systems, etc. His reduction furthermore provides him with the lesson aim, lesson problem, the form and the didactic modalities. All of this is reflected in his preparation and is realized in a classroom.

In describing the different aspects of a lesson structure it was often mentioned that a lesson is brought into motion and what actually brings it into motion, or what makes the dynamism of a lesson possible, is known as didactic modalities. This aspect deserves closer examination.

12. DIDACTIC MODALITIES

Where a lesson aim gives meaning and direction to planning the teaching of a lesson, and the ground-forms, methodological principles, principles of ordering the contents, and particular teaching methods give a flavor to a lesson, the didactic modalities initiate its movement or dynamism. They are especially directed at the effective realization of the lesson aim and the form of a lesson in a lesson situation. The question or problem that the didactic modalities try to answer or solve is how the principles of actualization, the modes of learning and teaching aids, as aspects of a lesson (together and separately), constitute the dynamism of a lesson. It is interesting to note that although the specific contents and themes may be forgotten, one clearly remembers the forms and methods used by a good teacher.

Etymologically the Latin concept “modus” refers to a manner or way of doing. Hence, didactic modalities indicate human ways of doing that are relevant to teaching. If we carefully examine a person’s activities in the original experience of educating and concentrate on

his way or manner of doing/acting, a number of human ways of living become prominent. Activity is most prominent in the original experience of educating. The activity of a parent is described as guiding or supporting a child so that he is later in a position to act by himself. Activity, therefore, is a principle of didactic practice because the activities of a child and an adult initiate and give direction to the event. In addition to activity we notice that individualization, socialization and tempo variation are ways of doing that have didactic significance because they initiate and direct the teaching activity.

The problem a teacher confronts is how these principles can be realized or actualized in a lesson situation. In other words, how can activity, individualization, socialization and tempo variation, as principles, be realized in a lesson situation, or what is their didactic significance?

Actualization deals with recalling prior knowledge and previous experiences (images, concepts, relationships, methods, impressions, etc.). It also can occur in an activity that is new and where prior knowledge, methods and their various forms provide the means for giving meaning to the new situation. Actualizing or realizing a didactic principle in this context means that a specific way of living is consciously and formally realized in a lesson situation, or that opportunities are created in which they can function.

An example of the actualization of the principle of activity indicates that a teacher has succeeded in creating a teaching situation in which a child is active. The specific principle of actualization is closely related to the lesson aim because it provides a particular way of teaching and learning. In the usual course of teaching it is clear that an adult initially accompanies (supports) a child until he is capable of being independently accountable for the contents. For this reason it is important to distinguish between “accompanied activity” and “self-activity” because it clearly indicates and emphasizes who is to take the initiative.

A careful analysis of the *general principle of activity* confirms a human being’s original openness and freedom to act in terms of his own decisions. The basis of his activity is the precondition for his

learning activities, explorations, etc. Thus a teacher can always depend on a certain amount of activity by a child, and this becomes apparent in his observing, thinking and remembering. However, it also is true that, notwithstanding a teacher's attempts to realize the principle of activity, a child is not always willing to learn.

A child is not always free to act according to his own preferences or will in a teaching situation. His task is to discover himself in the situation. This means that he must already have given meaning to the situation before he is able to discover himself in it. The extent to which a child is prepared to enter reality and be open and receptive to it determines the quality or effectiveness of the teaching. This double unlocking (reality by a teacher and himself by a child), as a precondition for forming, is clearly stated in the principle of activity—guided activity (unlocking reality) and self-activity (learning) jointly realize themselves in forming a child.

The ways a child becomes involved in reality (the modes of Dasein or human existence) are apparent in the various modes of learning. Thus a child can be led to establish his own position toward reality. The concepts "direct" and "lead" imply that a teacher takes the initiative regarding activity in a teaching situation. Examples of this in a practical teaching situation are seen when a teacher demonstrates and then supports a child by performing the activity with him in order for him to be able to act on his own. In the final analysis, this course of activity is the basis of the teaching structure in a teaching situation where an adult first takes a position in front of a child (between a child and the contents), then next to him and finally behind him.

An analysis of the *general principle of individualization* shows that, departing from the original openness of being human, each person gives meaning to reality in a unique way. This gives a person his own individuality, peculiarity, uniqueness, originality and even eccentricity. Individuality requires that a person must realize (become) himself in a situation, i.e., he must give meaning to reality, discover himself in a situation and eventually create his own life world.

Each person has his own identity that is actually the precondition and possibility of self-discovery. The self-identity of a person is revealed in the dynamism of his personality. A human being's individuality acquires its autonomy in his becoming, i.e., in what he *can* be. The quality of what he becomes is assessed according to criteria of being human and according to the ways he has realized his potentialities.

The form of organizing teaching that realizes individualization effectively is known as individual teaching: each pupil has his own teacher. However, from the nature of the modern task of teaching, such a form of organization is not possible. Therefore, other measures must be taken to realize the principle of individualization while teaching within a classroom setting. The principle of individualization strives to create ways of realizing inter- and intra-communication that result in a child establishing a personal lifestyle. In this sense, inter-communication refers to an openness to reality while intra-communication refers to a person's withdrawal into himself (in order to orient himself with respect to space and time, forms and ways of living).

The meaning of the *general principle of socialization* (where "socialization" as a principle of actualization is implemented) lies in an "encounter". The basis of an encounter is "Dasein" (human existence) that is inextricably embedded in "Mitsein" (co-human existence, being-with). This means a human being is always in communication and this also is the ground for his thinking and existence. Being-in-communication also implies being-with-another; it is always a matter of an inter-subjective relationship. Being-with others has far-reaching consequences for didactic pedagogics: a child's giving meaning to reality progresses, among other ways, via his identification with the person of a teacher.

Furthermore, by means of socialization, a child eventually identifies himself as someone who wants to become a person himself because in his relationships and involvement with other people he discovers himself. This is why socialization does not hinder individuality; it underlies and strengthens a child's sense of his own individuality. In realizing the principle of socialization, the distance between

teacher and child is closed by a joint, mutual and reciprocal “we-ness” as an inter-personal involvement.

The idea is that a teacher uses the principles of actualization to effectively bring his planning into motion. This motion shows itself as the sequence or course a lesson takes in a lesson situation. This sequence is further divided into a beginning, a progression or course and an end phase. The tempo according to which the various phases of a lesson proceed can support or disturb the harmony of the entire lesson. The responsibility for a smooth or constant lesson tempo is equally divided between teacher and child. A teacher must present a certain amount of contents in a certain period of time that a child must learn in that time. If this tempo is too fast, a child becomes unsure and confused because he cannot keep up. If it is too slow, this leads to frustration and a teacher can possibly expect discipline problems.

Where *tempo variation, as a general principle of actualization*, is used effectively, the result is mainly two-fold. By the nature of the differentiated tasks in the course of a lesson, a constant lesson tempo simply is not possible. The tempo must be planned anew for every phase of a lesson; for example, during actualizing possessed experience (or prior knowledge) the tempo can be quicker than during the exposition or presentation of new contents [See Chapter 8 for these specific phases]. In addition, varying or differentiating the tempo implies that the activities during a lesson also must be reconsidered and changed periodically.

As already mentioned, a further distinction must be made regarding the principles of actualization of activity, individualization, socialization and tempo-variation or -differentiation. For each of these principles, it is possible for a teacher to anticipate the learning activities of a child and, therefore, guide and support him until he can act for himself. The progression from a teacher’s guiding to a child’s self-activity proceeds by a teacher demonstrating to a child, then participating with him and then the child acting alone. The implication is that this must be planned anew for each phase of a lesson if a teacher is to realize the principle of activity.

It also is quite clear that, on the one hand, the principles of actualization primarily refer to a teacher's activities. In this respect they have more of a didactic meaning in that they emphasize the teaching perspective. On the other hand, it is equally clear that they appeal to a child to really act (learn) so there also can be mention of these principles as viewed from the perspective of learning.

In school, a child is dependent on a teacher's guidance. It is a child's task through self-activity to appropriate the life-contents and -forms offered to him in school in order to thereby anticipate his own future. However, a child cannot attain or reach this aim without the guidance of a teacher. Stated more formally, the category of unlocking reality implies that a teacher throw reality open for a child and guide his participating in it. The question now is how this guiding shows itself in the various principles of actualization?

The *activity of guiding or accompanying* has its origin in the fact that children and adults inhabit the world together. Because adults know and have knowledge, a child is dependent on them to lead him to a particular level of knowledge and skillfulness and eventually to the normative image of adulthood. Accompaniment makes it possible for a child to be taught and, indeed, if there is no accompaniment, there is no teaching. With this, accompaniment is expressed verbally as a didactic category. Actualizing the activity of accompaniment does not mean the slavish or recipe-like imitation of activities. The ideal is to bring about a harmony between accompanying activity and self-activity in a lesson situation. However, when a child fails in his self-activity, a teacher again offers his guidance and accompaniment until a child's self-activity reaches the desired level.

Although a child is born as possibility/potentiality his becoming is not exclusively dependent on it. This view supports *accompanied individualization*. Through directed and accountable guidance, a child must be helped to be himself. A child can only benefit from an adult's accompaniment if he opens himself to an adult. Accompanied individualization usually departs from a child's experiencing and places it in a new light or framework. In a

formalized school didactic situation, accompanied individualization is mainly realized through differentiated teaching. The idea of differentiated teaching is that particular help is provided a child in accordance with his readiness and potentialities. To bring this about, children are arranged into homogeneous groups so the optimum opportunity is created for a child to be able to achieve in accordance with his potentialities. A child's individuality is emphasized in the group and is the basis for emphasizing self-study.

The most important problems with grouping are first the criteria for assigning individuals to groups and second the most appropriate modes of learning and forms of teaching to allow the individual in a group to learn effectively. Part of the solution is in a flexible class organization that makes provision for, e.g., a child's self-study. The idea is not that, in this respect, a teacher is only a mere organizer because this would ignore his essential function as an initiator.

A child is dependent on an adult's accompaniment in order to lead him to adulthood. In this accompaniment, adults and teachers also use forms of teaching such as a learning conversation, a discussion class, the teaching question, etc. These forms of teaching emphasize that a child cannot find his own way through the world to adulthood. In the original experience of educating we note that a child imitates an adult, i.e., his language, play, activities and thinking.

Even in his imitating a child is involved in evaluating his own achievement against the quality and level set by an adult. This self-evaluation progresses to the extent that a child becomes involved with more people. To the extent that this involvement with others increases in intimacy, a child discovers himself. In this respect, actualizing *accompanied socialization* is an important and meaningful didactic aim. When a child acts socially, his achievement consciousness is optimally appealed to and hence he can ascertain his own potentialities. A teacher monitors, supplements and helps a child realize his own potentialities. Here his accompaniment is clear. This gives a child stability (security) that is a precondition for his acting himself. An intimate relationship with adults and the experience of a stable class climate

brought about by the influence of the group, promote his experiencing and security.

It is for this reason that class and group teaching fulfill an irreplaceable function. In this way a child can have a part in the social awareness of a group. However, excessive accompaniment can affectively restrain a child in the sense that his thinking and self-activity are not realized properly. A teacher must be mindful of this and continually alternate between accompanied socialization and self-socialization.

A general misunderstanding is that all children can master the curriculum with the same tempo and rhythm. The practical effect of this view is that it is assumed that, irrespective of the unique compilation of potentialities, readiness and interests, for five hours each day a group or class must master the same skills and insights. The fact is that not all children learn at the same tempo and the task of a teacher is to teach with an *accompanied tempo* so that it is in step with the development of potentialities. In addition, through direct and differentiated accompaniment a talented child can quickly acquire a firm grasp of the contents and a slower child is protected from an overload arising from a quick tempo. This means a teacher must teach with a tempo that benefits the class. Consequently, a teacher cannot orient his teaching tempo to the quicker or talented pupil, let alone to the so-called “average” child and least of all to the slower children in his class. This also means that a teacher must not see nothing but the time at his disposal, to the detriment of both child and contents, but that he always must remind himself that he is working with persons. Hence, his planning of lesson situations must possess a particular suppleness that makes tempo differentiation possible because it is indispensable in a classroom. Also, this means that a teacher must plan anew the tempo of each phase of a lesson.

Accompanied actualization indicates the role of a teacher; however, these same principles of actualization must be realized by a child. Accompanied actualization is a didactic or teaching task while self-actualization by a child originates in the phenomenon of learning. A child’s intentionality lays the foundation for his self-actualization.

Intentionality is directed to a child himself acting in a situation; i.e., intentionality is directed to self-realization in situations.

In this respect, self-realization is a precondition for both the didactic and learning effect. It also is closely related to an awareness of norms because self-realization is awakened by norm awareness. Self-actualization in school is of decisive importance. A child's life-energy and vitality are also directed to mastering the contents offered in school. In this respect, a school subject entices a child to action and self-discovery. Also these school contents provide a child with an opportunity to acquire original experience. In addition to self-activity increasing the quality of learning, it provides a child with enjoyment. The importance of self-activity and self-actualization are clear in the familiar expression, "a child must himself learn because another cannot learn in his behalf or for him". Learning shows itself in a changed relationship with reality. By virtue of a person's openness and his Dasein, his potentiality to change in his relationship to reality is given with being human. This change, as improvement, is not only a precondition for his becoming but also serves as his task. The fact that a child *can* learn proclaims the possibility of the activity of teaching.

Also, the fact that a child *will* learn brings about the reality of the activity of teaching. And in as much as a child must learn properly, i.e., must achieve properly and also master proper contents, the activity of teaching is necessary. *Self-activity* is realized where the possibility, reality and necessity of the learning activity are prominent. Apart from a child wanting to be independent (i.e., he wants to emancipate himself from an adult), he also anticipates his own choices. Because of the complexity of a reality that often is experienced as foreign to life, a child is dependent on another's guidance and accompaniment. It is also for this reason that situations are purposefully created to realize self-activity.

The concepts "exploring" and "constituting" are very closely related to the concept "self-activity". All three recognize a child as an individual and who has the task of discovering himself. Self-activity, as a didactic principle recognizes the uniqueness of each person.

A form of expressing self-activity, among others, is *self-individualization*, a concept that apparently seems like a tautology. The fact that a child wants to be someone himself underlies his activities. Constituting (designing one's own life world) implies self-activity, the self-discovery of reality and the individuality that becomes visible in a new relationship to reality. With more experience, a child acquires better judgment and more certain willful decisions. In this way, his "openness" is reduced; this really amounts to a particular quality of becoming formed or formedness. This aspect of a child's emancipation is seen in his own style (lifestyle).

In this respect, a lesson situation offers a particular opportunity for a change in a child's relationship to reality. Self-individualization further refers to both a rational and affective participation in reality. Therefore, the actualization of the principle of self-individualization means that the achievement consciousness of a child becomes awakened and directed. Lesson forms and modes of learning such as group work, problem solving and freely created activities are particularly suitable for actualizing self-individualization.

Joint activities (e.g., playing with, talking with, working with) must (where possible) originate, continue and be repeated in connection with a teacher's guiding a child. In this respect, once again it is important to indicate that unnecessary help and guidance by a teacher can restrain or hold a child back. The playful, naïve and spontaneous association with peers is the aim of *self-socialization* and, given its nature, should occur mostly without an adult's accompaniment. A child becomes acquainted with the social norms in original and genuine ways because there is an all too clear danger that a slavish imitation of already presented patterns of activity can only result in superficial and pseudo-formedness. The idea is not that the individuality of a child must be at the cost of a concern for the individuality of others. Rather, this means a child must learn that his activities (disposition, attitude, standards) influence his world relationship and with this also his relationship to fellow persons and their relationship to him.

Effective learning results often come to grief in a lesson situation because a child has not been given the opportunity to assimilate the learning material at his *own tempo*. Although the actualization principle of own tempo sounds like a contradiction to the support- and help-seeking nature of a child, the meaningful realization of a great variety of modes of learning and their intertwining in the activity of learning depend on a variation in one's own learning tempo. The significance of this is that each child masters reality with his own tempo and style of learning. A child's own tempo is already discovered early in his encounter with the contents. By actualizing his own tempo a child acquires the opportunity to discover his own tempo in relation to that of another, and to realize for himself his own learning or life tempo. The forms of practice so unique to the teaching activity can contribute to improving a child's learning tempo.

It is conspicuous from the above that the effects of the principles of actualization are first apparent in the modes of learning that are disclosed by them. Further, the connection of the modes of learning and teaching and learning aids can be deduced from these principles of actualization. It serves no aim to repeat these connections because they are discussed in detail under the heading "Types of lessons". What indeed is relevant is a succinct explanation of the meaning of instructional- and learning-aids in a lesson situation.

13. TEACHING AIDS

The concept "teaching aids" includes both instructional- and learning-aids. The concept "aids" is much too comprehensive because it can include desks and chairs, air conditioning, lighting, etc. if it is not confined to the teaching (instructional) act. In contrast, the concept "audio-visual aids" is too narrow because it excludes what are not audio or visual by nature.

However, it is meaningful and useful to differentiate between instructional and learning aids because the use of either the one or the other emphasizes the activity in a class. Where the activity of a teacher is emphasized (e.g., unlocking new contents, accompanying), instructional aids are sought. Here a black board

and wall chart serve as examples because both contribute directly to effective teaching. A learning aid is looked for to emphasize the learning activity of a child, e.g., a model or a program. A child must use the aid to gain insight into a matter, i.e., to learn effectively.

Finally, it is emphasized that the didactic modalities must be designed anew for each phase of a lesson because the relationships among didactic principles, modes of learning and instructional- and learning-aids are so intimate, and because a teacher must realize each phase of a lesson as a moving or dynamic aspect of the unity of a lesson. Further, in lesson planning there must be careful consideration of a progression from the accompaniment by a teacher to the self-actualization of a child because all lessons are directed to the eventual independence of a child; they are aimed at supporting a child to learn by himself, to decide by himself, to make his own judgments, and act by himself because he must eventually account for himself.

This chapter is devoted to a description of the origin of a lesson and all of its aspects that a teacher must consider thoroughly when he proceeds to establish a practice. A student teacher must understand that a lesson structure is not the practice itself, but that it offers a synoptic view and description of the origin of a lesson situation. In this respect a lesson structure functions as a blueprint for planning and realizing a lesson and certainly not as a recipe for teaching.

The following schemes summarize what has been said above and illustrate the mutual relationships among the aspects of a lesson structure:

LESSON STRUCTURE

(Meaning/Sense) Teaching aim: Lesson aim: responsibility of a teacher Learning aim: responsibility of a child Stating the problem Solving the problem	(Form) Lesson form: Didactic ground-forms Methodological principles Principles of ordering contents Teaching methods	(Dynamism) Phases of a lesson: 1. Actualizing prior knowledge 2. Stating and formulating the problem 3. Unlocking/exposing the new contents 4. Actualizing the new contents and control of the immediate learning effect 5. Functionalizing 6. Testing/evaluating
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Didactic modalities

They initiate and direct the dynamism of a lesson and must be planned for each phase of a lesson.

Didactic principles	Modes of learning	Instructional and Learning aids
Principles of activity*	Sensing (becoming aware)	Blackboard
Principles of individualization*	Perceiving (observing)	Textbook
Principles of socialization*	Thinking (conception)	Pictures
Tempo differentiation*	Imagining/fantasizing	Film
	Remembering	Computer

* Must progress from a teacher's aid and support (accompaniment) to self-actualization.

The relationships among the teaching aim, didactic modalities and lesson form result in *types of lessons* such as an appreciation, an explicatory, an experimentation, a demonstration and a drill or exercise lesson.

A question that follows directly from the above is how must a particular lesson be planned from the lesson structure as a blueprint? This question is considered in the following chapter.