CHAPTER 2
THE TEACHING AIM

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INTRODUCTION

The word "teach" is derived from "taecan" (Old English) which means to show, and this root meaning emphasizes the activity of the teacher. However, the root meaning of the Afrikaans word[*] "onderrig" (to teach) includes both the teaching and learning activities that are necessary for there to be a teaching situation. The first part of the word, "onder", means "together" and "rig" means "to show". "Onderrig", (to teach) literally means, then, "to show together". When [educative] teaching or instructing occur, this implies that an adult shows the children a path (to adulthood) which must be taken. This path represents the learning content around which the teaching revolves. The way this path originally was indicated, as noted in the first chapter, was by "reading to". Thus, there were manuscripts available to whoever was well-read or well-versed in the sciences of the time. This person then presented or taught this knowledge by reading it to someone.

The word "lesson" developed from the concept "reading to". To read, read to or give a lesson, therefore, implies giving a form to teaching. In other words, to teach means to create a teaching situation within which presenting content is the primary concern. In the teaching situation, it literally happens that the teacher (adult) shows the children that the content really involves the human lifeworld.

In this situation, there are two noticeable aspects, and they also are mentioned in the previous introductory chapter. The **form** is an aspect which is so intrinsic to teaching itself, that it cannot be denied. Further, teaching does not occur without reason. A very specific form is given to teaching by the adult, in the same way that the proverbial potter gives form to clay. That is, the adult **aims** to make this instruction successful; it is purposeful teaching. Consequently, there is a teaching aim which the adult has in mind, and which he/she tries to realize or fulfill in the teaching situation.

On the other hand, purposive teaching only is possible and meaningful because there is **content.** One is not able to teach "nothing" and a child cannot learn "nothing". The "something" which crops up in teaching is the teaching content. Thus, a teacher can make use of the narrative method to give form to his/her teaching (as a variation of conversation as ground-form). He/she relates something; he/she is busy presenting content in the form of narration (a story) to the children. In such a case, the story itself is the lesson content. The relationship which one should notice here is that, in the form of a story, the teacher brings the content home to the child, and that the relationship of this form (i.e., the narrating) and the story itself (i.e., the content) constitute the basic aspects of the lesson.

[*] And also the German word for teaching, "Unterricht" = "unter" + "richt".

There also is a third aspect which, at this stage, must be studied thoroughly. The teacher or adult does not give a lesson just because it can't be avoided. As indicated above, the adult's teaching has an **aim.** The ultimate aim is the child's adulthood. Were children not able to become adult, educative teaching would be a meaningless and unnecessary time-consuming practice. Yet, children can learn, they **will** learn, they want to become adults themselves. Indeed, to become adult, they must learn and, thus, the teaching aim the adult has in mind is that the children must learn so that, eventually they themselves can become adults who can stand in the world independently and on their own feet. Consequently, it is understandable that, in each teaching situation there is a **learning aim.**

The responsibility which the teacher takes for the entire procedure of preparing the situation, and the classroom activity, is summarized as follows: **With content which the children must learn, the teacher formulates a teaching aim, from which is derived a learning aim to be realized by the children.** One also can talk of a teacher's lesson aim, which is to attain the learning aim which he/she will awaken in the children. Viewed in this way, "lesson aim" is a narrower concept than "learning aim," which implies the result, end-product, or effect of the teaching.

Here, it is important and meaningful that the student teacher be aware that the teaching aim is built on the lesson and learning aims. The lesson aim has to do with the role the teacher takes, in so far as this concerns the presentation of teaching content. The learning aim refers to the role the pupils are going to or must take to bring about real learning (or teaching) results. These two aspects (the lesson and the learning aim) are united and made meaningful by the teaching content presented in the lesson situation. Yet another summary: The lesson aim refers to the aspects for which the teacher is going to take responsibility, and what he/she him/herself is going to carry out regarding the learning content **so that** the learning aim can be attained. The learning aim includes the matters which he/she plans regarding the learning activities of the pupils themselves--what the pupils ultimately must do to appropriately master the learning content or learning material.

The learning content is the connecting factor. The teacher teaches in terms of this learning content. On the other hand, the children learn this same learning content. Therefore, when there is mention of a lesson aim, this refers to the role of the teacher in presenting the learning content, while the learning aim has to do with the learning activities or participation in learning for which the child him/herself must be responsible in the teaching situation.

At this stage, it is meaningful to consider what is meant by "lesson aim", followed by an exposition of the meaning of the "learning aim," and what it means in the teaching situation. The fact is that, at this point, the **lesson structure** shows itself as the **relationship between form and content** in the teaching situation. Because the teacher has an aim in mind, he/she also has the responsibility to explain, in his/her lesson aim, the ways he/she will realize this teaching aim. This aim culminates in the fact that he/she expects the pupils to learn. Thus, he/she has a learning aim in mind. Literally, his/her lesson aim flows out to a learning aim--the matter around which this revolves is the content. Understandably, the lesson aim, as well as the learning aim always have to do with the content or are related to the learning content. The purpose of the following

section is to further explain the relationship of the lesson and learning aims to the learning content.

THE TEACHING AIM AND THE LEARNING CONTENT

Although this matter will be explained fully in a later chapter, for purposes of orientation and of clarifying the previous paragraph, a few observations are made about the meaning of the learning content, as the connecting factor between the lesson and the learning aims within the lesson structure, as well as about the ways the teacher is involved with the learning content in determining the lesson and the learning aims.

There is little doubt that, in the history of didactics, the question of the lesson content has been central ,in so far as a lesson structure was discussed. The teacher's preparation turned on the matter of the lesson content, and everyone was satisfied that a lesson is thoroughly prepared if the way in which the teacher had been involved with the content indicated that it was put together thoroughly, systematically, and in agreement with the pupils' level of becoming (development). Everyone who is familiar with the practice of teaching also will readily agree that each of these aspects regarding the lesson content is of significance and even makes a decisive contribution to the success of the teaching. The teacher him/herself had little voice about the themes elevated to lesson content because this was prescribed for him/her in the syllabus and/or in the work scheme of the subject were indicated to him/her.

However, this is of less significance for the purpose of this explanation. The fact of the matter is that, in each lesson situation, there is content. This content is the matter which is shaped, transformed, kneaded by the teacher as the first aspect of his/her lesson preparation. At the same time, this content serves as the learning material for the pupils who, in the ways in which they become involved with it, must acquire a mastery of it. That the presenting (the teacher's role) and the learning (the pupils' role) can be simple, or complex is not the point at this stage. What is of significance here is that, in his/her efforts, the teacher tries to disclose the meaning of the content. That is, he/she tries to disclose and interpret the inherent meaning of the content for the pupils to enable them to assimilate the content and make it their own. On the other hand, for the child, the learning task is to discover this inherent sense, which is unique to the content, hopefully with respect to the teacher's presentation.

The important matter for the teacher, stemming from this, is that neither he/she nor the pupils should be arbitrarily involved with the content. When he/she deals arbitrarily with the learning content, this implies that he/she cannot account for a lesson aim how fits into a series of teaching aims. On the other hand, should the pupils be arbitrarily involved with the lesson content, this indicates that they do not see the point of it, that their motivation to learn is lacking, because they cannot understand why they should stay involved with this content.

Anyone who presumes that the teacher's and pupils' involvement with the learning content is a simple matter does not understand the teaching practice. The problems related to this, however, remain primarily the teacher's responsibility. As a matter of fact, he/she guides and steers the situation by designing a lesson structure in such a way that

this inherent meaning of the content can be presented. What happens in a classroom, say on the part of the teacher or that of the pupils, must be included in the [lesson] plan which the teacher launches as the initiator of the event. It is valid to allege that if the teacher does not know what is going to be essential in the lesson, it is asking too much that the child, on his/her own initiative, be required to discover this for him/herself.

As far as the pupils' involvement in the learning content is concerned, more is said in Chapter 4 on the didactic modalities. What is of significance here is to unravel the primary principles which will guide the teacher's ways of being involved with the content. Here, there are three matters of importance, and they should never be lost sight of in designing a lesson:

1. Reducing the content.
2. Stating the (lesson) problem which the teacher has identified.
3. Ordering the content.

All three of these aspects will be focused on again in the discussion of matters concerning the learning aim. This is logical since the teacher's planning of the lesson aim must be branched off in accordance with the learning aim, in the sense that it must be phrased so it is within the possible grasp of the pupils. Therefore, we treat the three matters separately.

Reducing the learning content

In its original meaning, reduction involves the act of reducing something back to an original or first matter with the aim of clarifying it. All deductions, opinions, points of view, interpretations, etc. regarding the matter are not set aside by this reduction but, for the time being, they are ignored to disclose these origins [essences].

A reduction of the content in the lesson situation simply refers to the fact that a teacher discloses the essential facts of a chosen theme which are meaningful for understanding a problem which arises with the theme. In this light, a teacher should view the reduction of the learning content as a purification of the facts to separate the grain from the chaff.

In dealing with themes there are core facts which carry the insight, and incidental facts which make interpretations, applications etc. possible. Understandably, these incidental facts are of significance for interpretations, applications etc. Yet, these new products resulting from the insight are not the insight itself.

The insight itself is possible only if the teacher sees the essentials, i.e., the core facts of a matter, by which the matter **itself** becomes clear. To reduce learning content with the aim of designing a lesson implies, therefore, that the teacher must be able to distinguish between essentials and non-essentials, and to integrate these distinctions into his/her lesson structure. For attaining the learning aim, as discussed above, this activity has far-reaching consequences. More on this follows later.

To be able to distinguish essentials from non-essentials implies that the teacher knows his/her learning content extremely well. In the first place, reducing content is a matter of thorough subject knowledge and, indeed, for the following reasons:

1. All content which the teacher raises, figure in one way or another in the pupils' lifeworld. This fact is of special significance in preprimary or primary teaching, but continues to be so in the secondary school, even though in the highest classes, work is on an entirely abstract level, i.e., objective and scientific. The scientific discoveries, theories and inventions which these facts place at ones disposal as knowledge, are a matter of history, among other things. Thus, the Pythagorean Theorem, the development of Gothic Architecture and the development of the internal combustion engine all are recorded in human history. Thus, there is mention of origins. So far as our knowledge of them is concerned, things have origins.

Hence, each child is aware that there is lightning, that a heavy ship floats on water, etc. However, while he/she is growing up, he/she strives to clarify phenomena, events and experiences with which, in one way or another, his/her lifeworld confronts him/her. The clarifications which he/she seeks, for the most part, are the themes about which his/her teaching is concerned.

2. It is impossible for anyone to arrive at the essentials of matters or things without thoroughly analyzing them. Any analysis of a thing which remains on a superficial level cannot disclose its essentials. Essentials are a matter of depth, of delving beneath the surface of the matter. It often happens that, in the teaching situation, a teacher must contend with lots of facts which are much too many for one lesson, and entirely too comprehensive for the conceptual and developmental stage of his/her pupils. In such a case, his/her analysis of the matter, in accordance with his/her stated learning aim, must show him/her which facts will convey the insight to the children. In other words, what must the pupils know to really arrive at the heart of the matter?

The analysis which the teacher is obligated to make will largely determine if his/her lesson is planned around the issue of essentials. Once again, it is strongly emphasized that, if a teacher is satisfied with a superficial knowledge about and investigation of the theme about which his/her instruction will be given, such an analysis is not possible for him/her. Then, it also is not possible for him/her to assimilate the essentials of the matter into his/her lesson structure and really guide his/her pupils to a fundamental mastery or an insightful grasp of the theme of his/her teaching.

3. It is well-known that, in one way or another, say directly or indirectly, the theme figures in the child's lifeworld, and, because of his/her thorough analysis of the facts to be presented, the teacher still must express these essentials or basic facts in words. He/she must be able to clearly formulate the essentials which he/she will present to the children to be instructed, as a meaningful, comprehensive, and clear image of the theme as such. The importance of this aspect of his/her reduction of the content cannot be overestimated.

The language of the natural sciences, history or theology are not the language of the pupils who sit before him/her. These laws, interpretations and perspectives usually are formulated by persons of great learning who, in the first place, did not aim to make them

accessible to children. Every teacher must understand that the language of a science can be dismaying to a pupil. It is only by means of the language he/she uses that there really is communication between him/her and his/her pupils. Should he/she proceed to introduce the facts which he/she has disclosed, merely in scientific language, this implies that he/she locks up rather than unlocks this aspect of reality for the children.

In his/her lesson, a teacher can lock up instead of unlocking the content by how he/she verbalizes the essentials he/she has disclosed. Purely and simply, it is a teacher's task to change [“translate”] the facts which clarify and lead to the solution of a scientifically formulated problem into the language of the pupils before him/her. If he/she can not do this, his/her teaching often will be in vain.

The above three aspects are of fundamental importance for reducing the learning content for the purpose of setting a lesson aim, which will lead to a learning aim. A few other aspects previously touched on must still be attended to if the practical situation is to progress meaningfully.

The facts at which the teacher arrives in his/her reduction are not unrelated to each other. His/her analysis of the data of a theme can make it impossible for him/her to separate facts from each other with respect to the theme to be understood. In thinking through any matter or problem, it is these relationships among the facts which make the solution to the problem possible. One fact leads logically to another, and together they lead to a solution, to an issue which has become coherent and clear. In reducing the learning content, the teacher tries to understand the relationships among the facts. Also, he/she judges the value of these mutual relationships for the learners' eventual insight into such a problem. He/she puts him/herself in their place to try to determine how they will understand these relationships in the lesson situation, and to anticipate the best ways he/she can disclose these relationships to them. This is not an obvious matter in the lesson situation. The teacher makes the relationships obvious because he/she has disclosed these relationships among facts, and his/her presentation focuses on them to lead his/her pupils, in his/her footsteps, to discover for themselves these relationships and their significance for insight into the problem.

Finally, the teacher also knows that these facts must be interpreted. In the original Latin, "inter-pretatio" refers to clarifying, indicating, or narrating. An interpreter is someone who helps another to clarify or explain, or to draw a conclusion about something. When a teacher interprets the basic facts or matters which relate to his/her lesson theme, this implies that he/she has clarified, explained, pointed out or made judgments for the child. This interpretation is one of the very important guiding tasks of the teacher. The inherent meaning of the learning content, as it is analyzed and is evident in the coherent factual relationships, cannot acquire an appropriate form without interpretation. For these reasons, interpretation is an especially important aspect of reducing the learning content, which is required for the lesson structure to be brought about.

Stating the problem

Although each teacher is aware that every lesson is concerned with a theme, this does not mean that this theme, as such, confronts the children with a problem. The themes

included in the syllabus or work scheme of the subject, often are not conspicuously related to a child's lifeworld and, least of all, to the world of meanings he/she constructs for him/herself. The usual procedure at the beginning of a lesson simply is to announce a theme as the subject of the lesson for this day or period. Such an approach makes it factually impossible to work through the lesson aim to the learning aim, and to eventually stimulate the pupils to learn effectively.

The school syllabus is bursting with themes. These themes are ordered in specific ways in the syllabus, and sometimes necessarily follow each other. A child cannot master the one aspect or theme until the preceding explanation is grasped by him/her and is made his/her own insight. Therefore, in the lesson structure, it is so easy to give an overview of what previously was handled with the child and then proceed immediately to announce the theme for the lesson. In such a case, the teacher's assumption is that, by nature, the child will have an interest in this theme, that he/she will be curious about the matter which is introduced in this way. Also, it is assumed that somewhere in his/her questioning-consciousness, a problem of this nature has emerged, and that the child then diligently looks forward to the teacher clarifying this matter for him/her in his/her presentation such that all question marks become exclamation points. Anyone familiar with teaching practice knows that nothing could be further from the truth. The announced theme often is no problem at all for the pupils. It is relevant neither to his/her world of interests nor his/her lived experience, and only has value if it contributes to passing an examination.

As one delves more carefully into the different aspects of everyday practice, one can conclude that effective learning occurs best when the pupils are offered a definite problem. In themselves, themes are not problems. Yet, they contain very definite inherent problems which, in view of the pupils' stage of development, ought to be brought to light in the teacher's involvement with the learning content in such a way that it really is a meaningful, conspicuous question which is worth the trouble of answering.

Earlier it is indicated that nothing really happens in a class which the teacher does not allow to happen. The learning content also is not a problem unless the teacher is able to make it one. In the few examples touched on earlier, this matter is clarified to some extent. Archimedes' principle, as such, is not a problem for the children. Why a ship floats or why in a swimming pool a small boy can relatively easily lift a bigger one, however, are problems which ask for a solution, and in terms of which these imposing formulations regarding real and apparent loss of weight, and the volume of water displaced can be meaningfully put within the questioning-horizon of the pupils. Similarly, the arrival of the British Settlers in 1820 is not a problem for the pupils. The preponderant English orientation of the Eastern Provinces, especially some of the larger towns and cities, the first local newspaper and the establishment of the first Cape Parliament indeed are aspects of this theme which the pupils can be made aware of and which somewhere in the facts of the matter, there are questions which can be posed which must be answered.

With this, it is not professed that each individual lesson should have a stated problem. In the lower grades of the primary school, where there is mainly work with small units of learning content, it probably will be the case that each lesson ought to have a separate

problem stated because the lesson unit forms a separate unity. As one progresses in the school hierarchy, it can happen, e.g., that in the senior classes five, six or even eight lessons can be offered with respect to solving one single problem. The lessons, separately or together, shed light on the different aspects of the problem and ultimately culminate in a final synthesis or construction. This summary, synoptic image which the teacher then offers will direct six, eight or ten lessons and indicate the ways in which the problem is taken up and solved.

Understandably, this aspect also differs from subject to subject. Numerous problems in fixed, exact subjects like mathematics or arithmetic are meaningful and logical. Here the insights support one another and systematically are built up to a larger whole of mastery by the pupils themselves. In a subject like history, one problem likely will have the benefit of putting all the Napoleonic Wars in perspective and correspondingly interpreting and making clear their meaning in the course of history.

The pivotal matter, however, is that without an appropriate problem, the lesson or series of lessons cannot have a functional design which will lead the pupils to effective learning. The problem must place the learning content in the pupils' world of meaning. This is an extremely difficult task for the teacher and places the highest demands on his/her ingenuity, knowledge of his/her subject, skillfulness in reducing the basic facts, ability to analyze, interpret and summarize. If the matter or theme remains missing from the pupils' experiential world as a problem, the teacher must expect that effective learning will fail to occur. Thus, in designing a lesson or a series of lessons, the matter which will shed light on the theme must be formulated as a real, penetrating, and meaningful problem for the pupils. This not only provides the teacher with the opportunity to make full use of the pupils' experiences, lived experiences, perspectives, abilities and dispositions but it especially stimulates his/her class' motivation to learn and, in a very direct way, branches off from his/her lesson aim to his/her learning aim.

Beyond any doubt, the most important matter to which attention must be given is the way the teacher formulates and interprets this problem in accordance with the pupils' stage of development. This matter is referred to above. Still, one cannot stress this difficulty strongly enough. A teacher simply must be able to arrive at the matter or theme after which the fundamental problem he/she wants to state must be formulated in such a way that it will function meaningfully, grippingly and enquiringly in the lesson situation. When a stated problem does not direct an appeal to or stimulate the questioning attitude of the pupils, a true problem has not been posed. Should this aspect of the lesson be missing, in so far as the content is concerned, this means there is an immediate distance between teacher and pupil which is exceedingly difficult to bridge by the presentation itself.

Therefore, stated in the planning of the lesson design, especially in expressing the lesson aim, is how the teacher is going to make sure that he/she is clear about how and in what ways a meaningful and far-reaching problem will appear in his/her lesson.

Ordering the learning content

Since this aspect is discussed in more detail in a later chapter, a few remarks will suffice. The only matter which must be indicated is that the content cannot function meaningfully in planning the lesson aim unless consideration is given to the fact that this content must be ordered or organized in meaningful ways. Unknown content is and remains a chaotic matter for the pupils. Out of this chaos, the teacher's presentation must create order which will be of a lasting character.

The meaning of the ordering is closely related to the meaning of the content. When the theme of the instruction has a natural relationship to the child's surroundings, it should not be otherwise than that the teacher takes these natural surroundings and the child's knowledge of them as his/her point of departure in formulating his/her problem and in ordering the learning content in accordance with the **symbiotic principle**. Should the content be abstract and distant in nature, probably the teacher will use **divergent ordering** to be able to present different examples of the matter of concern as bringing to light, illustrating and clarifying the problem. Also, these concepts of symbiotic and divergent ordering are discussed more fully in the following chapters. Even so, the teacher must note that the question of ordering already arises in this first involvement between him/her and the learning content, and he/she must purposefully give attention to it in searching for the most reasonable, meaningful and functional ways of ordering in light of the class before him/her, the learning aim he/she has in mind and how he/she plans his/her present presentation.

At this stage, the teacher's lesson preparation, thus, is begun:

(a) such that he/she has reduced the learning material to its essentials with the aim of knowing what it is in this matter which is going to convey to the pupils' insight into it;

(b) such that he/she has formulated a lesson problem in meaningful ways to place the theme, as such, within the questioning-horizon of the children;

(c) such that he/she gives attention to the possible ordering of this content to be able to meaningfully work through it to stating his/her learning aim.

SOME BRIEF COMMENTS ON THE ESSENTIALS OF THE LESSON STRUCTURE*

Here a brief focus on the essentials of the lesson structure is offered because the teacher is responsible for this structure in his/her presentation. In the following chapters, the essentials of the lesson structure are discussed and illustrated further to give the student teacher an idea of the whole which is of significance for the lesson and for his/her lesson design as such.

Reducing the learning content, stating the problem and ordering the basic facts assume that the teacher now knows what he/she wants to do. The question which now confronts him/her in the further discussion of the lesson aim is: How should this be done? The first issue which this involves is the choice of his/her didactic ground-form(s). For one who, to some extent, has been introduced to didactic theory, this concept is not unfamiliar. By ground-form is meant that basic or fundamental form which the teacher chooses to bring his/her lesson into motion. For example, he/she can do this by making use of

* This heading did not appear in the original text, but it is apparent that the author has moved from the topic of ordering the lesson content to a more general consideration of the aspects of the lesson structure. (G.D.Y.)

conversation. On the other hand, perhaps the learning content offers him/her the possibility of giving form to his/her lesson by means of play.

These two familiar didactic ground-forms are seen, among other ways, in the familiar class discussion or lecture, a free or controlled discussion, and other forms of conversational teaching, which are or ought to be common knowledge when a student has advanced as far as the lesson structure in his/her didactic studies. Computational games, singing games and others are forms of bringing a lesson into motion by means of play. On the other hand, a teacher can give form to his/her lesson by means of an example (exemplar) or an assignment.

The way or ground-form of example is very familiar in arithmetic or mathematics instruction where a teacher chooses an example of a problem as his/her point of departure and leads the children to master it by his/her analysis of it. Project teaching is a familiar way in which assignment, as a ground-form is actualized or used in the classroom situation. Since these matters are discussed in more detail later, at this stage, we will not go into this any further. The particulars are readily available.

What is still of importance here regarding the ground-forms lies in the fact that, again, one must point to their fundamental significance for the lesson structure. The didactic ground-forms are basic human forms of living. They refer to ways in which persons in general life situations go out to the world by means of very identifiable forms by which they learn to know their lifeworld in spontaneous life situations. This activity of the child learning to know which, as everyone knows, is studied by pedagogics, is a matter which is guided by the adults. Consequently, the didactic ground-forms refer to the forms by which an adult, in a spontaneous life situation, guides and instructs a child when this child is faced with a learning task.

All children must learn. They learn long before they enter school. Their first teachers are their parents. By the time a child goes to school, he/she has learned more than he/she ever will learn in the rest of his/her life. Therefore, in explicating the lesson structure, the didactician searches for these original forms by which educating (including instructing) is actualized in spontaneous life situations. What speaks here is an original human experience which cannot be exceeded in the lesson situation. A parent instructs his/her child by dramatizing (**playing to**), by prompting (**conversing**), by showing (**demonstrating**) and by giving him work (**assignments**). The didactic ground-forms are inferred from these four activities which, in the lesson situation, now must be compiled in formal ways by the teacher into a functional whole.

No matter how one looks at didactic practice, one cannot conclude other than that each teaching situation is cast in one or more of these basic forms of living. It is impossible to provide teaching with a ground-form by going outside of these fundamental forms of living. All known systems and forms of teaching are variations or refinements of techniques of teaching embedded in these (four) ground-forms. Therefore, the student teacher must make a thorough study of what these ground-forms imply and, with good reason, in preparing his/her lesson he/she must exploit to the utmost the didactic possibilities of the ground-form(s). The importance of this matter is emphasized further in the following chapters.

Should a teacher then decide that in his/her lesson, he/she is going to make use of play, conversation, example or giving assignments, this is the first and probably most important decision he/she makes regarding the way he/she is going to present the content.

The following matter, in setting the lesson aim, has to do with which **didactic principles** the teacher aims to use in the lesson situation. Also, this aspect of the lesson structure is discussed more thoroughly under the topic of didactic modalities. To orient the student, here it is only noted that, in so far as there is mention of a didactic principle in the lesson structure, it is the direct link between the lesson aim and learning aim.

Possibly one can best understand this by considering two of the principles. Should a teacher select the **principle of activity** to weave a connection between his/her lesson aim and learning aim, this means that the pupils will play a conspicuous role during the lesson itself. For example, with assignment as the ground-form, in his/her presentation, he/she will lead the pupils to themselves discover, experiment or practice and, in these ways, try to reach the learning aim.

Another example of the use of a didactic principle is found in the question of **tempo differentiation**. Tempo differentiation indicates that, in the lesson situation, the teacher clearly distinguishes among different aspects of his/her presentation of the learning content and the anticipated learning activity of the pupils. Thus, he/she will work slowly with certain structures of the content, while he/she will offer other aspects with a faster tempo. His/her aim is to break directly through from the presentation to the learning activity. Although both principles entail more than what can be mentioned here in a few sentences, the intention only is to bring to the attention of anyone disposed to plan a lesson, an illustration of the idea of the choice of a didactic principle. It also must be understood clearly that, when the student teacher has progressed in his/her didactic studies as far as the lesson structure, a multitude of such matters will already have been thoroughly considered in the theoretical course work which has preceded his/her teacher training.

The following aspect to which attention is given in preparing and explicating the lesson aim is that of method. Also, in this case, the teacher takes a fundamental standpoint regarding his/her ways of approach before he/she chooses a method or combination of methods. The main thing of concern here is the distinction between a **deductive** and an **inductive** approach.

One briefly can explain the distinction as follows: With a deductive approach, the teacher begins with a law, proposition or established fact and then moves to examples or illustrations to elucidate the validity of this fact, proposition or law. Thus, in such a case, his/her point of departure is a definition itself. This definition is verified and demonstrated in his/her presentation.

In the case of an inductive approach, the teacher begins with the matter itself, instead of with a definition or description. In this case, the teacher takes an example or an aspect of reality itself as his/her point of departure and, through his/her reductions and analyses, arrives at the formulation of a law or definition. Where, in the case of the deductive

approach, the definition is the point of departure, in the inductive approach it is the result or end of the instruction.

In the light of these basic approaches regarding the presentation of his/her learning content, the teacher now chooses one or more methods by which he/she will actualize his/her lesson design. The **narration**, **question-and-answer**, **demonstration**, **experimenting**, **textbook methods,** and more, are examples of methods which can tie the lesson structure together in an instructional unity, which is focused on learning.

The **teaching aids** the teacher is going to use are chosen in accordance with all the above aspects and placed in the lesson structure. This aspect also is discussed in detail in later chapters. Here, the primary fact the teacher takes into consideration is that he/she will concretize, make visible, introduce his/her lesson aim, as explained in his/her reducing, stating the problem and ordering the lesson content, by the teaching aids he/she chooses. The use of teaching aids during a lesson never is concretizing or making visible for the sake of the concrete and the visible. Teaching aids must help the teacher teach. In other words, teaching aids have the advantage of helping the teacher unlock reality to help ensure the pupils' learning.

In Chapter 4 on didactic modalities, important principles are taken up which must be considered when teaching aids are chosen for and ordered in the lesson structure. The implication of this last statement is that, in designing a lesson, one does not merely make use of good teaching aids. The teaching aids form part of the ordered lesson structure, and the teacher must be able to give professional and scientific reasons why just these aids will be applied during the lesson in this way at this place and time.

In summary, the lesson aim which the teacher decides on implies an aim broader than the learning aim. The lesson aim addresses the contribution the teacher intends to make to the progress of the course of the lesson. Therefore, the lesson aim also determines the basic structure of the lesson design or the form which the lesson, as **presentation,** ought to take. The lesson aim has to do with the role of the teacher in the situation. In the exposition which follows, this aspect is described, among other ways, as **guided actualization** of the lesson content. This simply means that the actualization of the learning activities by the pupils, through the guidance (presenting, instructing and all they imply) of the teacher are planned. Literally, in his/her preparation, he/she walks through the expected learning activity in advance by trying to instruct such that authentic, effective learning really occurs.

In contrast, the learning aim is a much narrower concept. In formulating the learning aim, the concern is with the pupils' active participation during the lesson, i.e., with the pupils themselves actualizing the learning content. This aspect is the theme of the following section.

THE LEARNING AIM AND THE LEARNING CONTENT

In the concluding remarks of the above section, it is indicated that, as far as the **lesson aim** is concerned, its essence is summarized as an attempt at the **guided actualization** of the learning activity in the didactic situation. In contrast, **stating the learning aim** of the

lesson is directed at trying to ensure that **self-actualization**, "self-learning" by the child, is in the lesson structure, as far as possible. One finds the relationship between these two concepts in the fact that the teacher guides the learning activities of the pupils with the aim that effective learning by them (self-actualization) will occur.

From the above section, the primary and most important task of the teacher regarding the lesson aim is to reduce the learning content to its real, essential, insight-conveying core. From this reduction of the learning content, the teacher is him/herself able to examine and plan (design his/her lesson), his/her own presentation of the facts of the slice of reality he/she wants to unlock. In so far as there is mention of a learning aim, as an aspect of the lesson structure, this learning aim presumes that the reduction of the learning content has been satisfactorily considered in explicating the learning aim. Therefore, the **reduction** of the learning content is, indeed, the primary and most important aspect of the explication of the **lesson aim.**

In contrast, the **learning aim** links up with **stating the problem,** which the teacher has arrived at from his/her reduction of the learning content in connection with his/her lesson aim.

For the sake of a complete and thorough orientation of the reader, the following are presented again as essential aspects which must be considered when the teacher works out a formulation or statement of a problem for his/her lesson structure. This matter is of importance because, as indicated, eventually the lesson design comes into motion with respect to the statement of the problem. While the teacher is busy reducing the learning content to its essentials to find those matters which will convey the insight to the pupils in the learning situation, with stating the problem, he/she proceeds to link up, directly and explicitly with his/her pupils. It is through stating a problem, which is based on his/her reduction that the teacher finds a link with his/her class. In stating the problem, for the first time the pupils enter the horizon of the lesson as real, living persons. Stating the problem is the primary link among the teacher, the learning content and the pupil, with the aim of effective learning, which always remains the sense of the situation which is created. For these reasons, when he/she is ready to state the problem, he/she must pay attention to the following matters in his/her involvement with the learning content:

1. The way in which the problem is formulated or expressed in words.

A teacher can state a problem such that its formulation is a mere verbalism. In such a case, it does not have a problematic character for the pupils. The way it is formulated is not directed to the matter or matters placed at their disposal by the adult, and which they must master. On the contrary, it must be meaningful for the pupils. Where at all possible, the teacher proceeds in stating the problem to express the matter in words, in such a way that, considering their level of development, he/she poses a question which is meaningful, understandable and interesting to them. The dangers which one must watch for in stating the problem include, among others, the following: Being vague, ambiguous, unwisely using exact and scientific concepts, assuming that the child's foreknowledge regarding the problem is functional, being bombastic, oversimplifying and being verbose.

2. In terms of one or another of his/her formulations, the teacher tries to place the problem within the pupils' framework of meaning regarding their lifeworld. Thus, he/she thoroughly considers the experiential world of his/her pupils in formulating the problem so that it has relevance to the class as a problem and is in accord with the experiences and lived experiences which normally are manifested in the life of a child of this age. Hence, the problem must be life-related, educatively valid and not foreign to the pupils' lifeworld.

If reducing the learning content gives an indication that such a problem is relatively foreign to the pupils' experiential world, the teacher tries to put it in a real, significant framework of meaning by direct or indirect intervention regarding the pupils' lack of experience. He/she usually does this by trying to replenish their deficient experiences, e.g., by showing a film or filmstrip, reading a piece to them, telling a story with the aim that his/her introduction of matters will create a contrived experiential space on which the problem can function purposefully as a matter of motivating learning. Without a real, significant framework of meaning, there cannot be a statement of an actual problem in the lesson. The consequence of a defective problem statement is that effective learning suffers.

3. The teacher also tries to make the problem actual. To make a problem actual simply means to hold it before the child as an important matter. But, in addition, it is to convince them that this is an important matter which they must understand, learn to know and master. Matters which are not actual or are not introduced as actual matters, do not attract the pupils' attention. Also, they do not stimulate any motivation for learning. Therefore, the first and the second aspects mentioned above are extremely significant when they flow together into this third matter of actualizing a problem, in consideration the life experiences, lifeworld or totality of lived experiences already at the pupils' disposal. It often happens that, in a lesson situation, the pupils ask the question: Why do we have to learn these things? In such a case, the teacher has failed regarding this aspect of his/her stating the problem.

4. To be able to successfully integrate these three aspects of stating the problem, the teacher must link up with the foreknowledge at the pupils' disposal. This foreknowledge can exist in the experiences which they have had. It also can be formal knowledge which the pupils possess, which they have assimilated for themselves, and which they (hopefully) can implement in a functional way. This knowledge, already at their disposal, is not separated into different compartments. It is one large totality which functions in extraordinary, amazing ways when a child again proceeds to learn. When this foreknowledge is ignored or inadequately considered in the statement of the problem, this simply means that his/her statement of the problem will not break through to the lifeworld of the pupils.

5. The teacher must try to create a problem that is as functional as possible. Above all, children are acting, moving, doing things. They are constantly doing things long before they think about it. Indeed, therefore, we educate and instruct them. Should a problem not have a functional character, for the pupils this implies that it is a dry, abstract whole which has little to do with the ways they participate in the world and in life. Hence, the statement of the problem should include indications about what a pupil will be able to do

with the insights he/she is going to acquire with this lesson or series of lessons; how he/she will be able to implement them to act or come to know additional things, to learn to master new structures. The lesson itself is a functional whole. How then could it be possible to set a lesson in motion with a non-functional statement of a problem?

6. The statement of the problem must be conceptually graspable for the pupils. The statement of the problem in a lesson already is an indication of the essentials of the content to be interpreted in this/her lesson. A teacher can never formulate a problem without using concepts which, in their turn, necessarily flow from the reductions to which he/she has come in working up his/her lesson aim. Thus, the concepts flow spontaneously and equally (hopefully) from his/her own insight into the lesson content.

If one now also considers the matters under point 1 above, this implies that a teacher is extremely sensitive to the use of concepts of a scientific subject which, at this stage, are meaningless sounds to his/her pupils. If possible, he/she should state the problem in the language of the pupils. It is precisely his/her aim in the lesson to break out of the naive, casual way in which the pupils deal with the content, to a stricter, more formal and even more scientific engagement with things. However, to begin with the aim to attain the aim is a contrast which does not function in the explication regarding the learning aim of the lesson structure.

7. A last aspect which is important in stating the problem is that, if possible, the teacher must take up the high points of the course of the lesson contained in the problem. Therefore, its formulation must give a precise and direct indication of why this content is involved in this course of the lesson. In this sense, stating the problem is a summary of the lesson itself, in reverse. It includes all the most important, essential and unavoidable data which, as such, will be brought up in the lesson. Thus, one can understand that the simpler the lesson content, the simpler the statement of the problem, and the more complex the lesson content, the more complex the statement of the problem. The simple problem which characterizes the reductions of the learning content in the junior classes of the primary school, make room, in the last classes of the secondary school, for stating multiple problems which can lead to direct and sufficient abstracting in the scientific sense of the word.

From the above, one can draw the following important conclusions about the fact that stating the problem enables the teacher to directly break the learning content through to the pupils themselves. To the extent that the pupils are involved during the lesson, the entire matter of content revolves around the problem the teacher has stated. This focuses their learning intention on solving this problem in terms of the teacher's presentation, and the mastery of more (and/or) similar problems which arise, as such, from the lesson. In fact, he/she reduces the learning content with the direct aim of formulating the statement of a problem, which will serve as a bridge between his/her insights and those which the pupils must acquire. For these reasons, stating the problem is the nodal point of the lesson and, as such, is a precondition for unfolding the course of the lesson, as embodied in the lesson aim.

For these reasons, it is understandable that formulating a meaningful, functional problem is one of the most difficult tasks continually faced by the teacher. It takes study and

thought to formulate a problem on which there can be an effective reduction which is functional within the questioning-horizon of the pupils, and which motivates effective self-actualization (self-learning). Should the teacher succeed in this, he/she can give attention to the following aspect, which is of essential importance to an explication of the learning aim, with a view to effective learning.

It is reasonable, at this stage, to ask the question: How does the teacher progress from his/her reduction, through his/her stating the problem, to the pupils, themselves, learning effectively? The answer to this question probably lies in the fact that the insights the teacher has disclosed in the statement of the problem are actualized through the pupils' anticipated modes of learning in the lesson situation. To anticipate modes of learning in a lesson situation means that the teacher, literally, puts him/herself when the child must learn, and tries to understand how these pupils are going to lived experience this problem as a learning task, and how they are going to take on the task which the problem contains.

As far as the modes* of learning are concerned, Sonnekus lists the following for consideration:

1. Sensing
2. Attending
3. Perceiving
4. Thinking
5. Imagining and fantasizing
6. Remembering

It is not the purpose here to give an extensive explication of the modes of learning. In this connection, didactic pedagogics links up with psychopedagogics, which answers the question about how these modes of learning are manifested in a child's lifeworld. Also, this entire matter of modes of learning, and their implications are interpreted didactically in detail in Chapter 4, titled "Didactic modalities".

What is emphasized here is that the teacher participates effectively and fruitfully in the didactic situation in accordance with the fact that a child senses in this or that way (by perceiving, thinking, imagining and fantasizing, and the other modes of learning). These modes are the ways in which a child masters a bit of learning content or solves the problem which the teacher has formulated for him/her in his/her learning aim.

With respect to learning, to put oneself in the lifeworld of a child implies that a teacher can accurately anticipate the way or ways in which his/her pupils probably will become involved with and master the learning task which is contained implicitly in the statement of the problem. In agreement with the conclusion to which he/she has come, the teacher plans his/her lesson design such that his/her presentation (i.e., the way in which he/she

* The modes of learning originally listed in this chapter being translated are: "(1) sensing; (2) perceiving; (3) imagining and fantasizing; (4) thinking; (5) actualizing intelligence; (6) remembering; (7) here Van Niekerk adds a seventh, namely, attending". The slight change in their order and the absence of actualizing intelligence are in accordance with more recent developments in psychopedagogic thought that, obviously, were not available to the author of this chapter. However, the meanings of each of these modes of learning essentially remains the same. For example see: M. C. H. Sonnekus (ed.), **Learning: a psychopedagogic perspective**. Stellenbosch: University Publishers and Booksellers (Pty.) Ltd., 1985.

gives structure to the lesson content) will help actualize the anticipated mode or modes of learning.

Consequently, in planning the learning aim, the teacher should never simply leave the modes of learning to chance. Indeed, he/she should try to design his/her lesson such that it is likely to promote learning. If, for example, he/she constructs his/her lesson design around the idea of an exemplary demonstration, and, at the same time, decides that the way in which the pupils are going to learn to know this matter or problem, probably lies locked up in their (visual) perception, obliges him/her to let his/her demonstration unfold such that perception, as a mode of learning, is given its full justice in the lesson situation.

The correct anticipation of the modes of learning, and the contribution of the lesson design to their actualization represents, then, the break-through from the lesson aim to the learning aim. Stated more clearly, this implies that his/her designing and presenting his/her lesson are going to contribute to the fact that the pupils will learn effectively.

SUMMARY

In the ways indicated, the lesson structure acquires its form. In designing a lesson, the teacher makes the following choices:

1. Ground-form(s)
2. Didactic principles
3. Principles of ordering the learning material
4. Methods
5. Didactic modalities

These five matters are the skeleton of the lesson structure. The content covers these bones with flesh and muscles.

In the following chapters each of these aspects are described and explicated in more detail until, in the last chapter, an explanation is offered regarding how a teacher explains and justifies his/her lesson as a matter of his/her preparation*.

* The few examples of lesson write-ups presented in Chapter 5 are concrete illustrations of how a teacher can plan a lesson by implementing all of the aspects of the lesson structure considered throughout this book. (G.D.Y.)