

LESSON MODALITIES AND DESIGNING A LESSON

3

N. J. S. BASSON

TO THE STUDENT

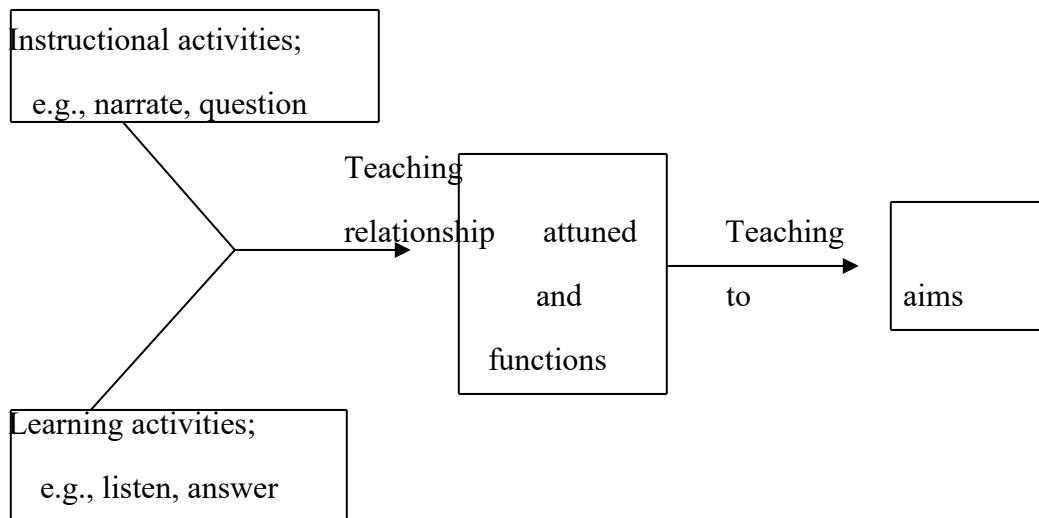
1. When you have studied the contents of this chapter, you should be able to do the following:
 - * identify the place of the didactic modalities in the lesson structure;
 - * plan the modalities for a lesson;
 - * formulate the concept of lesson modalities;
 - * find the differences among teaching relationships and functions;
 - * explain the differences among guided-, joint-, and self-actualization;
 - * identify and enumerate the different nuances of teaching and learning;
 - * formulate the significance of general didactic principles for lesson modalities;
 - * show the place of teaching methods in the lesson modalities.
2. Reformulate each of the above learning aims as a question and then answer it.

1. INTRODUCTION

Teaching refers to specific instructional and learning activities which are carried out purposefully and harmoniously. The **ways** these teaching activities are carried out refer to the concept lesson modalities. Lesson modalities, thus, are concerned with the execution of specific instructional and learning activities by the teacher and pupils. For example, a teacher **demonstrates** and **explains** while pupils **look** and **listen**. These activities are interdependent and reciprocal. Hence, they are often referred to as **correlated** activities.

When these activities are carried out purposefully and effectively, a **teaching relationship** arises between teacher and pupil. For example, a good teacher immediately awakens trust in his/her students because he/she explains the subject contents with authority and clarity while they **listen**. This has the effect that the teaching relationship is meaningfully actualized during a lesson. Because this teaching relationship arises between teacher and pupils, persons with differing potentialities and preferences, it can be handled in very **many ways**. The actualization of these varied activities during a lesson refers to the varied forms (nuances) of instructing and learning which occur in practice.

Lesson modalities, thus, are described as particular activities of instructing and learning (with or without teaching aids) which are carried out in harmony and in correlation with each other based on specific teaching aims. During the execution of these activities, **principles of instructing** are considered, and certain **teaching functions** are executed ultimately to establish a meaningful **teaching relationship**.



Thus, to meaningfully locate the **didactic modalities** within the framework of the lesson structure, they must be analyzed further so these parts can be distinguished within the meaningful and ordered structure, as a totality, to design a lesson.

2. DESIGNING LESSON MODALITIES

2.1 Establishing teaching relationships in a lesson

These relationships arise among the learner, the teacher and the specific subject contents which are to be mastered. The teaching aims to be attained have an important influence on the teacher's and pupils' **ways** of acting (instructing and learning). The **meaning of instructional and learning activities** is found in their correlation with specific subject contents presented to **attain the aims**. Thus, relationships are established. In designing a lesson, the following teaching relationships must be distinguished:

- * teacher and pupil(s);
- * teacher and subject contents;
- * pupil and subject contents; and
- * pupil and pupil.

Since these teaching relationships are established in the light of the aims to be achieved, the teacher and pupils have specific **functions** (see Section 2.3) to perform at certain stages of the lesson. Consequently, in designing a lesson, it is important to delimit clearly the teaching aims and even to strive for a hierarchy of aims on the basis of which these functions will be carried out.

The focus of the teacher and pupil in the situation also is significant for the teaching relationship which is established. For example, a teacher can decide, based on preference and skill, to explain, narrate, interpret, etc. Thus, as a person (subject) he/she will represent the contents and this can be viewed as a particular focus known as a **subjective-dominant** one. Another possibility is that, based on the nature of the subject contents,

he/she chooses to demonstrate with good teaching aids. In this case, his/her focus is more organized so the objects constituting the contents themselves direct an appeal to the pupils. For example, a teacher can **point out** important concepts and relationships to the pupils with a good model. The model displays the concepts to the pupils without the teacher him/herself having to represent them. This focus sometimes is called **objective-dominant** because the object itself has qualities that show the concepts (subject matter contents).

Clearly, a teaching relationship can be **actualized in different ways**. To acquire a clear perspective on the lesson modalities as particularizations of the didactic modalities, the different ways of actualizing the teaching relationships are elucidated further.

2.2 Actualizing teaching relationships

In subject didactics, the concept **actualization** refers to subject matter contents as well as to teaching and learning activities which are carried out in terms of a teaching aim. To reintroduce the subject matter contents, e.g., by a pictorial representation or by the purposeful execution of specific actions are referred to as their **actualization**. The different ways these activities can be engaged in once again point to changes in the lesson modalities during the lesson.

To meaningfully design a lesson, the teacher must be aware of the diverse possible teaching (instructing and learning) activities which he/she can use. Thus, some modes of instructing classified according to the didactic ground forms (Van der Stoep, 1969) follow. [This is not a complete classification; e.g., see Van der Stoep and Van Dyk, 1977].

| CONVERSATION | EXAMPLE | PLAY | ASSIGNMENT |
|----------------------|-------------------|------------------------|------------------------|
| talk | specimen | sports | work assignments |
| narrate | pure case | tours | projects |
| discuss | typical case | free play | independent activities |
| question-and-answer | likeness | adventure | tasks |
| explain | model | dance | programmed instruc. |
| lecture | pattern | gymnastics | etc. |
| debate deliberate | ditto pictures | dramatize fantasize | |
| recite | actual example | search for | |
| read to | etc. | etc. | |

etc.

The above ways of acting also are known as **nuances** of instructing and learning. This indicates that the ways of instructing and learning can change. These activities are **ways of living** which have didactic significance and value in a lesson context. These ways of living, such as narrating, questioning-and-answering, explaining, and playing, are familiar to the pupil and can be meaningfully and purposefully used to attain instructional and learning aims. If a teacher says in class, "Today I am going to **tell** you about George Washington Carver and you must **listen** carefully", then he/she announces one nuance of conversation as well as the mode of learning (listening, as a nuance of perceiving) he/she is going to use to attain his/her teaching aim. At this stage, the pupils are not familiar with the new subject content (George Washington Carver), but they know precisely the **form** the lesson will take, since the form of living, **telling**, and the mode of learning, **listening**, are familiar to them. **The form of these modes of activity is recognized because specific modes of instructing and learning are repeated such that a "pattern" or form is displayed.** In the general lifeworld of people, this form can be typified as a **form of living** while, in the context of instruction, it is a **form of teaching**. Thus, in presenting his/her lesson, the teacher makes use of familiar forms of living to attain his/her teaching aims.

This reciprocity between modes of instructing and learning executed to achieve an aim also are called **teaching methods** since they refer to the ways the aim can be achieved. Some familiar examples of teaching methods are narrating, demonstrating, discussing, and explaining. From this, the close connection among life forms, teaching forms, methods of teaching, and teaching relationships is clear. This merely illustrates that these concepts can be differentiated but not separated from each other.

However, a teaching relationship is not only established by the teacher's instructional activities but also in relation to the learning activities of the pupils. The significance of the instructional and learning activities is that they are correlated. Consequently, it is also necessary to refer to some modes of learning as nuances of the learning act. (For a full explication of learning, psychopedagogics must be studied. See the explications of Sonnekus, Van Niekerk, and their colleagues). Since learning plays such an important role, it is of utmost importance that the teacher thoroughly plans his/her pupils' **sensing, perceiving, thinking, and remembering, for example.**

(a) **Sensing.** This mode of learning is very subjective, but it arouses a certain orientation in the pupils. At this stage, the student only has a **global understanding** of the matter. He/she relies heavily on the images he/she experiences via seeing, hearing, touching, tasting, and smelling. To actualize this mode of learning, the teacher can use certain teaching aids with good effect. When a pupil **wonders** about what he/she experiences, this is an indication that sensing is actualized. Thus, a teacher, in designing the lesson modalities, can plan to point out, e.g., the strange, funny, different and surprising to arouse the pupils' wondering. Consequently, the pupil begins to ask questions and to seek solutions to the lesson problem. Thus, a biology teacher can surprise his/her pupils with a beautiful model and arouse their wondering. The effect is that they enter the learning event with a purpose.

From the perspective of designing a lesson, the fact that a pupil not only must be **concerned with** but **remain concerned** with the subject matter contents is important, and this aspect of the learning activity is known as **attending**, which has its origin in sensing.

(b) **Perceiving.** Perceiving indicates that the superficial image impressions (see, hear, touch, taste, smell) must be interpreted by the pupils. This interpretation refers to the pupils' perspective on and understanding of the matter. Ultimately, after a lesson, the pupils must have a clear understanding of what they saw, heard, touched, tasted, or smelled. Lesson modalities must be designed so the teacher can purposefully actualize the pupils' perceptual interpretations. For example, this can be done by indicating focal points which orient the pupils to the most important aspects of the subject matter contents.

Again, the correct and purposeful use of teaching aids is particularly important. For example, a meaningfully organized chalkboard scheme, a visual model, a real example can be used such that the concepts and relationships can be **perceived** clearly. Also, it should be kept in mind that perceiving implies a direct and continual interaction with sense perception and thinking (conception).

(c) **Thinking.** By thinking, a clear **idea** about the matter is acquired. Thought operations such as analyzing, synthesizing, schematizing, classifying, ordering, systematizing, and applying must be carried out purposefully to attain a firm grasp of the subject contents. Each subject area has a particular nature and structure of terms, concepts, and relationships. As a subject expert, the teacher must guide the thinking of his/her pupils by **first giving an example**, then by **acting together**, and finally by letting the students do the activity **themselves**. By using the terms and concepts of the subject matter themselves to formulate, systematize, order, etc., they will acquire a clear understanding of the contents.

(d) **Remembering.** Two important aims are distinguished here:

1. **Practicing [rehearsing]** an earlier achievement, skill, technique, or mental representation. Here **repetition** often must occur so the pupils can reproduce the subject correctly and clearly;
2. **Internalizing** the subject contents and making them one's own. Loose and disconnected aspects of the subject contents must be brought together into a meaningful, integrated unity, into a symbolic scheme, and/or into a structural representation. In planning his/her modalities, the teacher must specifically strive for these two aims.

From the above, when lesson modalities are designed, two important aspects must be planned, namely, **learning activities** in harmony with **instructional activities**, both of which must be carried out in terms of the **learning aims** to be achieved.

The point of departure for designing modalities for any lesson is planning specific instructional and learning activities to attain specific instructional and learning aims because of the learning contents which have been reduced [to their elementals, essences]

for the lesson. The learning activity of the pupils is planned in harmony with the instructional activity of the teacher, along with appropriate instructional and learning aids. **This is the basis for planning modalities for any lesson.**

However, an additional aspect which is very important in planning lesson modalities is the functions of the teacher, the pupil, and the subject contents regarding their fulfillment during the **actualization** of the teaching relationships. Attention is given to this matter in the following section.

2.3 Ways in which teaching relationships are actualized

The modalities of a lesson situation are those aspects where teaching relationships are actualized through specific nuances of instructing and learning. However, to meaningfully implement these teaching relationships, different interrelated functions must be fulfilled by the teacher, the pupil, and the subject contents. For our purpose, the following three basic ways of actualizing teaching relationships are distinguished:

- * Guided or accompanied (by the teacher) actualization;
- * Joint (by teacher *and* pupil together) actualization; and
- * Self-actualization (by each pupil).

Examples of such teaching situations are described next.

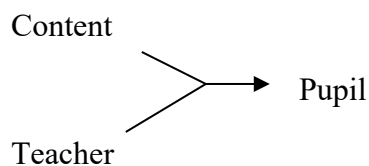
(a) **Guided actualization of teaching relationships.** Here the teacher's function of guiding is especially prominent. Variants of instructing used are, e.g., narrating, explaining, elucidating, clarifying, describing, interpreting, and demonstrating. The teacher is the **representer** of the contents. This function of teaching is very prominent and dominant in this situation; this function is sometimes described as a **subjective-dominant** focus. The pupils' learning function in this situation involves, e.g., listening, imitating, and memorizing. The pupil shows an attitude of expectation and dependence on the teacher. This focus or attitude is described as **dependent-receptive**.

Schematically, these functions of teacher and pupils with reference to each other, and to the subject content are represented as follows:



The "position" of the teacher and pupil in this schematic representation merely illustrates their instructional and learning functions with respect to each other in the teaching situation, and in no way represents a physical position.

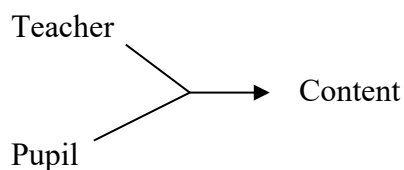
A variation of this teaching function often arises in practice when the **nature of the subject content** is such that certain essential aspects of it can be shown by the content itself. For example, if there is a good model, real example, or diagram, the teacher can fulfill a more **indicative** or **demonstrative** function. Depending on this function, he/she now assumes a "position" with respect to the content. His/her instructional relationships now are strongly interactive with the subject content, e.g., a model, sample, apparatus, print, scheme. Schematically, this teaching situation is represented as follows:



The inherent quality of the subject matter content and the instructional aids allow the teacher to represent less and to show (point out) more so the pupils themselves can look for, perceive, and distinguish characteristics and relationships.

However, the teacher still maintains a clearly guiding and dominant attitude in his/her actions. He/she still explains and indicates important concepts, characteristics, and relationships. In this relationship, he/she does not give the pupils an opportunity to discover on their own, nor will he/she have a discussion with them. Based on this attitude and these actions, this relationship is predominantly guiding. This type of relationship can be actualized in a class or group (social) context. Then, socializing in the context of teaching is actualized.

(b) Joint actualization of teaching relationships. Here the instructional function of the teacher is focused on solving a problem *with* the pupils. He/she is purposefully directed not to provide easy answers or to explain a subject. The most conspicuous variant of instructing here is questioning-and-answering with the teacher guiding his/her pupils to a solution through **discussion** and **collective thinking**. It also can be said that he/she **lingers** instructionally with the pupils by the subject matter content as interpreter, demonstrator, or merely organizer. Depending on the active or less active participation of the pupils, the teacher can take a "position" alongside or behind them. Suggestive help and guidance based on well formulated questions by the teacher are characteristic of this teaching relationship.



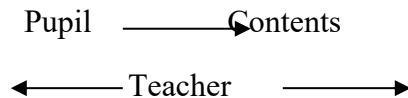
Demonstration as an instructional variant also can be used here provided the teacher does not give too much guidance to the pupils with advice and explanations about what they perceive. Positioning the teacher behind the pupils occurs when, at moments, they themselves perceive or act to solve the problem. For this moment, the teacher gives them

an opportunity to achieve on their own, while maintaining a strong evaluative function to ensure that they correctly interpret the new concepts.

The teacher's style, tact, and experience are extremely important for the success of this teaching situation. By successfully executing it, the instructional effect and the correlated learning effect clearly are promoted.

The use of **group work** in the classroom is another way **joint actualization** is implemented. Although the teacher remains the controller, the pupils, in a group context, search for relationships and solutions to the problem. This joint thinking and doing with fellow pupils, where the teacher plays the role of organizer and controller [checker or monitor] is a joint or collective actualization of the teaching relationship.

(c) **Self-actualization of teaching relationships.** A pupil is someone who **wants to become someone** him/herself. This basic human attitude compels a teacher to provide opportunities for his/her pupils to themselves achieve in the subject matter area. The functionalizing aim [phase] of each lesson is specifically attuned to this self-achievement. **Doing things oneself** is very prominent in this teaching relationship. Each pupil is active as an individual practicing the subject matter contents and acquiring an understanding of them. Of course, when needed, the more dependent pupils can rely on the support of the teacher. This teaching situation is schematized as follows:



The teacher is represented as being parallel to the pupils and contents because his/her function is mainly to organize, control [i.e., check] and evaluate. However, if necessary, he/she gives help and support at any time to pupils with their assignments. Also, since he/she is in a parallel "position", he/she can either give individual help to pupils or repeat **explanations** of difficult aspects of the content. When this occurs, his/her **teaching function changes**, and so does the teaching relationship and situation.

Self-actualization refers to an **individual activity** where each pupil achieves something for **him/herself**.

2.4 Lesson modalities and general principles of actualization.

Attaining teaching aims through instructional and learning activities is characterized by the teacher demonstrating (guided activities), doing things together (joint activities) and by the pupils doing things on their own (self-activities). Underlying these activities are the following general principles of actualization: **activity, socializing, and individualizing**. A teacher who designs lessons must implement these three general principles by making provision in his/her lesson design for the following essential aspects of each of them.

(a) **Activity.**

- * Each child must be given an opportunity to carry out certain activities.
- * Plan and design the pupils' activities for each lesson.
- * The quality of a pupil's activity is influenced, in part, by his/her potentialities as a person as well as by the appeal which the particular teaching situation directs to him/her.

(b) Individualization.

* Each child is a unique individual with his/her own potentialities which must be formed to the maximum.

* Teachers, in designing a lesson, must create opportunities so the pupils **individually**, through self-activity with the subject matter content, can establish a new relationship with this reality on a higher level.

* Design lessons where each pupil takes an opportunity to conduct dialogues with the world around him/her in his/her **own unique ways**.

(c) Socializing.

* Intersubjective, mutual relationships among pupils and between pupils and teacher must be established.

* Establishing these relationships is aimed at bringing about a change in, a deepening and flourishing of the participants' involvement with each other and with the subject matter content.

* Thus, lessons must be designed so that there is opportunity for establishing contact with and for conducting mutual dialogue among pupils and with the teacher.

2.5 The relationship among lesson modalities and general didactic principles.

The instructional and learning activities carried out during a lesson are directly attuned to attaining the teaching aims. But these instructional and learning activities are also carried out in compliance with certain didactic principles which can elevate their quality. For our purpose, the general didactic principles formulated by Van der Stoep (1969: 38-41) are sufficient. These principles are sympathy, clarity, tempo, dynamics, and balance. Irrespective of whether the teaching relationship is actualized by **guided-, joint-, or self-activity**, these principles are usually applicable. Lesson modalities embrace the harmony and interaction between instructional and learning activities which, by meaningfully applying these didactic principles, influence the **outcome and quality** especially of the **affective learning climate**.

(a) Sympathy. To teach with sympathy means the teacher seeks the pupil on the level where he/she is to link up with him/her. The attitude, the approach, and the way the teacher accepts the child, despite his/her deficiencies in knowledge, insights, skills, etc., are critically important.

(b) Clarity. For instruction, this principle refers to the following:

- *the specific aims and goals to be striven for and achieved;

- *the meaningful ordering of activities and subject matter content;
- *decisiveness in guiding and controlling.

(c) **Tempo.** As a didactic principle, it refers to the life tempo of teacher and pupils. The teacher should plan, regulate, and control the tempo at which the pupils will work during the lesson. A slow tempo can give rise to boredom and frustration while too fast a tempo can bring about consternation and dejection.

(d) **Dynamic.** There are a relationship and interaction between tempo and dynamic. A dynamic teacher, however, is characterized by:

- *enthusiasm for the subject area or content;
- *diligence and dedication with which he/she designs and presents his/her lessons.

(e) **Balance.** This refers to the harmony among the important components of the design and presentation of the lesson. For example, harmony must be brought about between:

- *freedom of the pupil and authority of the teacher;
- *form and content of the lesson;
- *guided activity and self-activity;
- *too many or too few concepts; etc.

3. SUMMARY

3.1 Summary of the guidelines for designing lesson modalities

(a) Based on the reduction of the subject content, the learning aims are already formulated.

(b) Now decide what learning activities the pupils must carry out to achieve these aims. Select learning aids which support these learning activities.

(c) Then, decide which instructional activities the teacher can use which best actualizes these learning activities. Choose a teaching aid(s) which best supports these activities. [Remember that an instructional and a learning aid can be the same aid, e.g., a chalkboard, depending on whether it supports the pupils' or the teacher's activities].

(d) Now decide how these instructional and learning activities must be actualized to achieve the specific learning aim:

- *with guided-actualization;
- *with joint-actualization; or
- *with self-actualization.

Along with all of this, it must be decided if work will be done individually, in groups, or as a whole class.

(e) While carrying out instructional activities, the teacher must always consider and apply the following didactic principles:

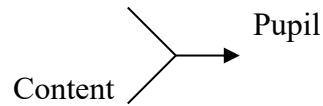
- *sympathy;
- *clarity;
- *tempo;
- *dynamic;
- *balance.

3.2 Summary

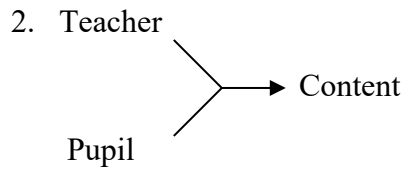
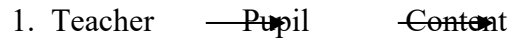
- (a) **Lesson modalities** are the correlated instructional and learning activities, supported by teaching aids, carried out to attain teaching aims.
- (b) A precondition for meaningfully actualizing lesson modalities is establishing **teaching relationships** by engaging in **teaching functions** according to **teaching principles**.
- (c) A teaching relationship is a particular relationship among teacher, pupil, and subject matter content which is established to attain teaching aims.
- (d) Variations (nuances) of instructing and learning, e.g., are demonstrating, explaining, presenting, perceiving, imagining, ordering, classifying.
- (e) Instructional and learning activities strongly interact and mutually influence each other; therefore, they are correlated activities.
- (f) Surprising or strange appearances, striking arrangements, conspicuous or odd teaching media, striking pictures, schemes, or variations in color, etc. actualize **sensing** as a mode of learning. The effect is a lived experienced wondering which allows the student to enter, via attending, the learning event with a purpose [i.e., to resolve the wonder].
- (g) By **perceiving**, the impressions (via sensing) are elaborated into a personal interpretation by each pupil. Thus, the teacher must purposefully indicate focal points so each pupil can acquire his/her own perspective on the subject content by his/her own interpretation of it.
- (h) Acts of **thinking** such as analyzing, synthesizing, ordering, classifying, and recapitulating must be actualized during the lesson by teacher demonstrations, joint activities, and independent work.
- (i) **Remembering** refers to practicing by, e.g., repeating the subject matter content until it is understood and internalized.
- (j) The following situations refer to the basic ways a teaching relationship can be actualized:

o Guided-actualization

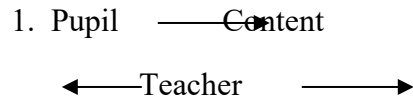
1. Content —Teacher Pupil→
2. Teacher



o Joint-actualization



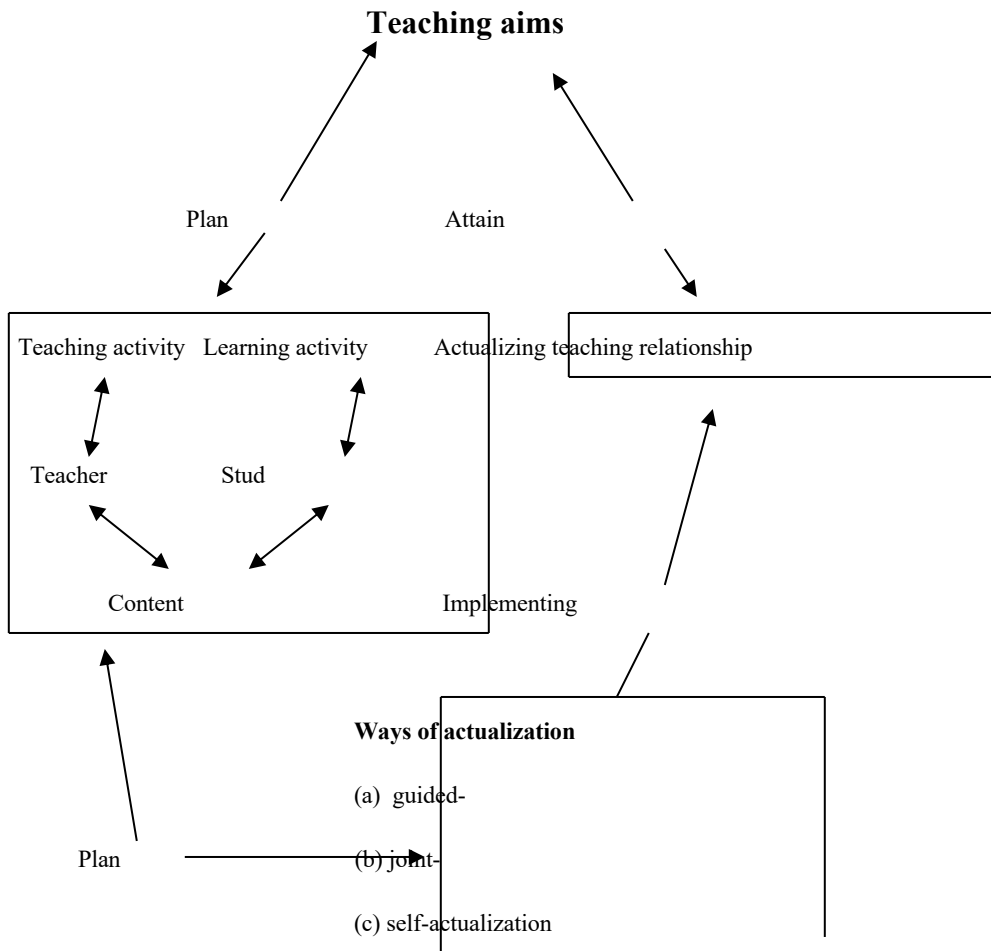
o Self-actualization



In each of the above situations, the teacher and pupils carry out specific functions. Thus, the above diagrams indicate the participants' functions in relation to each other and to the content.

(k) The didactic principles of sympathy, clarity, tempo, dynamic and balance must be considered to effectively actualize teaching relationships by means of teaching functions.

(l) Schematically, the course of planning lesson modalities is represented in the following flow chart:



It is important to note that there are close relationships and interactions among each of the components of the lesson modalities. Distinctions are made but they cannot be separated.

(m) Teaching methods are the juncture of the modalities and the forms of a lesson. Methods are the specific activities (instructing and learning) which are the ways the **aim** can be achieved, e.g., by narrative and question-and-answer methods. “Lesson modalities”, however, is a broad concept since it includes teaching methods, functions, and principles by which the teaching aims can be achieved.

4. OBSERVING THE LESSON MODALITIES DURING THE PHASES OF A LESSON

TO THE STUDENT

When you have studied the contents of this section, you should be able to do the following:

- *observe lessons with the help of the modality table;

- *distinguish the aims of the phases of a lesson;
- *identify different teaching functions;
- *meaningfully interpret changes in guided-, joint-, and self-actualization during the six phases of a lesson;
- *meaningfully interpret changes in the aims of the phases of a lesson.

4.1 The aim of observing a lesson

The previous theoretical pronouncements about the lesson modalities represent an ordering and systematizing of teaching activities which are carried out in practice. By purposefully and systematically observing lesson situations, changes in the aims of the phases of the lesson and in teaching functions can be identified. The modality table below is an aid to focus an observer's attention and interpretation on the modality aspects of a lesson.

By purposefully identifying and systematically recording the attainment of teaching aims through teaching functions, an observer's understanding of lesson modalities should deepen. If this aspect of a lesson is understood better, this should have a positive effect on lessons designed later by the observer. Thus, the purpose of observing lessons with the modality table is not to evaluate the lesson but rather to understand the sense and meaning of the correlated activities of the teacher and pupils. As an observation instrument, the modality table is a way of classifying teaching functions in relation to the aims of the six phases of a lesson. The aims of these lessons are presented fully in Chapter 2. An observer must know the essentials of each of the aims of the phases to identify how they change during the lesson.

The compilation and the different components of the modality table are treated fully in the following section so that it can be used as an observation instrument.

4.2 Compilation of the modality table

To use the modality table as an instrument, clear distinctions are made among the teaching functions as well as among the instructional and learning aims which must be recorded in the table. Therefore, it is necessary to describe more specifically the different parts of the modality table and their interrelationships.

The table reflects three basic ways a teacher and pupils can actualize their teaching relationships and functions. These instructional and learning functions are classified as follows:

- *Part A: Guided-actualization;
- *Part B: Joint-actualization;
- *Part C: Self-actualization.

In addition, six distinguishable teaching- and learning-aims striven for and which vary during a lesson are:

- *actualizing foreknowledge as aim;
- *stating and formulating a problem as aim;
- *exposing new contents as aim;

- *controlling or actualizing new concepts as aim;
- *functionalizing the new concepts as aim;
- *evaluating the new concepts as aim.

Schematically, the compilation of the modality table is represented as follows:

Observing the ways of actualizing the phases of a lesson and their aims

| Ways of actualization | re | Aims of the phases |
|-------------------------|----|---------------------------------|
| A. Guided-actualization | | 1. Actualizing foreknowledge |
| or | | 2. Stating/formulating problem |
| B. Joint-actualization | | 3. Exposing new concepts |
| or | | 4. Controlling new insights |
| C. Self-actualization | | 5. Functionalizing new insights |
| | | 6. Evaluating new insights |

This observation instrument is designed to identify when, during a lesson, the teaching functions (instructing and learning) change with reference to the aims of the phases of a lesson. To purposefully carry out this observation, the observer must be able to distinguish clearly among the attainment of a specific aim for each phase of a lesson on the basis of certain teaching functions and relationships. Each aim of the phases now is discussed in light of guided-, joint-, and self-actualization.

4.2.1. Actualizing foreknowledge as an aim of a phase of a lesson.

(a) **Guided-actualization of foreknowledge** (Modality Table, Row **A1**). The teacher asks a few questions and mostly is dominant-subjective in his actions because he is communicating with and re-presenting the pupils' foreknowledge. In practice, this often amounts to a teacher naming, systematizing, and ordering the relevant concepts required as foreknowledge for the lesson. Thus, the relevant foreknowledge is summarized by the teacher in a diagram on the chalkboard.

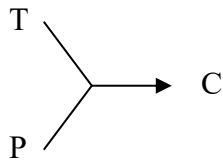
Situation:

Content (C) ~~Teacher~~ (T) Pupil (P)

(b) **Jointly-actualizing foreknowledge** (Row **B1**). To actualize the pupils' relevant foreknowledge, the teacher is disposed to guide them with questions. His function, together with the students', is to systematize, order, and schematize. Often the suggestive question-and-answer method of guiding is used here.

An additional variation of this teaching function and aim is implemented with **group work**. For example, questionnaires can be completed and discussed by groups of pupils collectively and then serve as the bases for new concepts that must be dealt with.

Situation:



(c) **Self-actualizing foreknowledge** (Row C1). Now the pupils work individually on an assignment that the teacher has given. The aim of the assignment is directed to actualizing the foreknowledge relevant to the new concepts. Sometimes a brief test at the beginning of a lesson is used to achieve this aim.

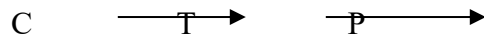
Situation:



4.2.2. Stating and formulating the problem as aim of a phase of a lesson.

(a) **Guided stating and formulating the problem** (Row A2). The teacher is subjective-dominant in his attitude and puts himself in a "position" between the subject matter content and the pupils because they are not yet presented to the pupils. Therefore, through purposeful questions, must guide her pupils to experience a problem. Because they do not know the content (as a solution to the problem), they are dependent-receptive in their attitude. However, when they experience and understand the problem, questions can be expected from them. If they don't occur, the teacher will have to explicitly formulate the problem. Characteristic of this teaching function is that the students are **not** active participants discussing and questioning the problem.

Situation:



(b) **Jointly stating and formulating the problem** (Row B2). The characteristic attitude and function of teacher and pupils is to jointly identify and possibly to discuss possible solutions. Here an illustration of the problem by means of teaching and learning aids often is conspicuous. In school practice, the following examples can occur:

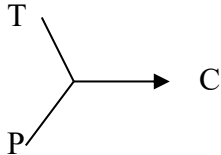
- *in history, a view or position of a statesman is written on the chalkboard. The political implications of the view are identified as a problem and are formulated jointly;
- *a mathematical equation is written on the chalkboard. The problem is identified, discussed, and explicitly formulated

jointly by teacher and pupils

*in the natural sciences (biology, physics, chemistry), a phenomenon from nature is shown. The problem is identified, discussed, and explicitly formulated jointly by teacher and pupils.

Now the teacher becomes focused indirectly on guiding through suggestions. Consequently, how he formulates and directs her questions are of particular importance.

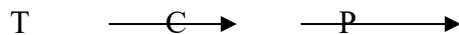
Situation:



(c) **Stating and formulating one's own problem (Row C2).** The teacher guides the pupils to experience a problem about an issue. Then, he gives an assignment requiring each pupil to **individually** formulate and write down her own problem. Individualization by pupils during formulating the problem is conspicuous. The benefit of this strategy is that each pupil must formulate and write down his own experience as a problem. The teacher now can estimate the effects of her instruction with respect to the pupils' experiences of a problem by attending to each of their formulations.

Note that row **C2** is filled in only when the pupils are individually formulating the problem. Thus, when the teacher continues to guide them regarding the problem or subsequently to control or verify, row **A2** or **B2** of the observation table are filled in. That is, her instructional function and position determine which of these two rows are filled in.

Situation:



4.2.3. Exposing the new content as aim of the phase of a lesson

(a) **Guided exposition of the new contents (Row A3).** As far as his teaching function is concerned, the teacher puts himself in a "position" between the new content and the pupils. Now she is conspicuously busy in ordered, systematic, and purposeful ways elucidating, re-presenting, explaining, clarifying, describing, etc. Conspicuously, the teacher does not ask too many questions of the students. His interpretations and explanations are of particular importance and need to be expressed in her presentation and subjective-dominant attitude. Although the new content also is clarified by instructional and learning aids, the teacher remains very prominent during the entire presentation.

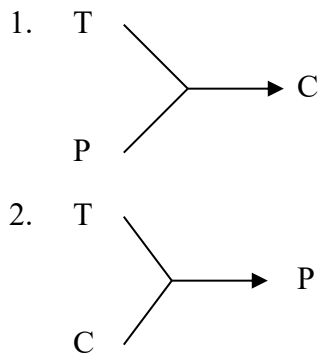
Situation:



(b) **Joint exposition of the new content** (Row **B3**). While unlocking the new concepts, relations, etc., the teacher usually is disposed to direct the pupils' thinking with questions. A good **demonstration** with teaching aids also is characteristic of this way of instructing and learning. Now the teacher is more objective in her attitude since he can take a "position" alongside the subject content because it can be clarified by instructional and learning aids. Discussing, debating, demonstrating and **joint interpretations** of the new content is very prominent.

Well-formulated questions by the teacher directed to the pupils' thinking and the joint discussion of those questions is characteristic of this mode of instruction. Group work and group discussions by the pupils also are characteristic of this type of teaching.

Situation:



(c) **One's own exposition of new contents** (Row **C3**). The teacher now expects that the pupils individually will interpret the new concepts and relations. Practically, this means that the pupils first must try to acquire the new insights by themselves. The **assignment** that the teacher gives is of particular importance. The teacher's function is to choose, order, and formulate assignments that the pupils must carry out. In this situation, she takes a "position" behind the content. A few examples are:

*based on an assignment, the pupils in chemistry and biology first must **individually** carry out an experiment, make certain observations, and draw conclusions;

*in literature, pupils can **themselves** first read through and interpret a poem;

*in mathematics, the pupils can be expected to **themselves** first attempt to solve a new problem.

Situation:



4.2.4. Actualizing (verifying/controlling) new insights

(a) **Guided actualization (checking/controlling) of insights (Row A4)**. The teacher must verify if her instruction was effective. Thus, it is important that he check to see if the pupils understand and have acquired the insights. Guided control is when she does not ask questions of the pupils but again presents the core ideas or concepts. Such **summarizing** and **repeating** of concepts serve as a control and exercise of insights. Since the teacher still acts in a subjective-dominant way by **himself** ordering and summarizing the already explained concepts, in the modality table this is classified as guided control (by the pupils) or verification of the teaching effect.

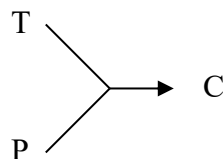
Situation:



(b) **Joint actualization (verifying/controlling) of insights (Row B4)**. Questioning and answering as a way of instructing and learning now is very prominent. The teacher purposefully verifies (controls) with well-formulated questions to the pupils. Discussion of the new content can occur in a class or group context. The difference between guided and joint control is that in the former the teacher does not directly involve the pupils via questions and answers.

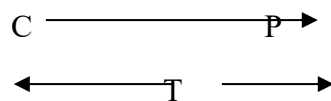
Often the control of the new concept is done **while** it is being presented. The problem for the observer is that during the observation cycle of one minute neither of the two aims of this phase is dominant. If half-minute observation cycles are used, a better differentiation between these two aims can be made.

Situation:



(c) **Self-control of new insights (Row C4)**. A list of questions is individually answered by each pupil and then looked over by himself. The correct answers are provided by the teacher by which each pupil can check her own work. **Individualization** and **self-activity** once again are very conspicuous here.

Situation:

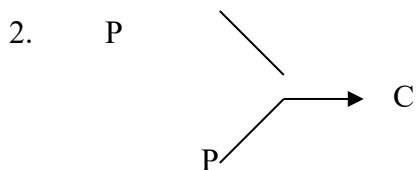
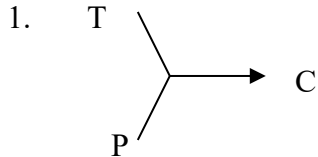


4.2.5. Functionalizing insights

(a) **Guided functionalizing (Row A5)**. This is when pupils are busy functionalizing insights by working out for themselves examples of application. The **teacher interrupts** this activity to **clarify again** a particular matter. This guidance by the teacher helps the pupils effectively and purposefully practice their own achievements. Only the time in which the teacher guides is recorded in row A5 of the modality table. When pupils work individually, row C5 is filled in.

(b) **Joint functionalizing (Row B5)**. Practicing and applying insights are carried out by the pupils, but the teacher still indirectly can give guidance and indicate a course. **Group work** now is very prominent. The pupils must carry out a particular assignment **together** during which insights are practiced, conjectures are aroused, or a creation is accomplished in language or some other medium, e.g., a drawing or a woodwork model. Experimental work in the natural sciences carried out in a **group context** with the aim of functionalizing insights also is classified in this row.

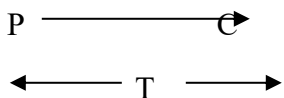
Situation:



(c) **Self-functionalizing of insights (Row C5)**. The pupils now are individually busy practicing insights and bringing about their own creations. Their own formulation in technical language now is very conspicuous and of particular importance. In subjects such as art, woodwork, home economics, and the natural sciences, a wide variety of other media also can be used to make one's own creations.

The observer now only attends to the functionalizing activities carried out **individually** by the students.

Situation:



4.2.6. Evaluating insights (Row C6). Sometimes a teacher will evaluate the pupils' insights **during** a lesson. With such brief tests at the beginning or at the end of a lesson, he can greatly improve his knowledge of the pupils' insights into the subject content relevant at this stage. Since each pupil must achieve **individually**, for the purpose of observation, this is recorded only under self-actualization (Row C6).

Situation:

P —————>C

4.3 Principles for filling in the modality table

(a) The procedure for filling in the table occurs per **time interval**. For each minute, a **dominant** teaching function (guided-, joint-, or self-actualization) must be identified with reference to a certain teaching aim.

(b) Only **one** aim under guided-actualization (**A**), joint-actualization (**B**), or self-actualization (**C**) is checked off per minute. In this respect, it is important that components A, B, and C of the table be viewed as a totality.

(c) Identify the aim the teacher strives for during that specific minute of the lesson. According to the table, this can only be one of the following six aims:

- o Actualizing foreknowledge: **A1** or **B1** or **C1**
- o Stating and formulating the problem: **A2** or **B2** or **C2**
- o Exposing the new: **A3** or **B3** or **C3**
- o Controlling insights: **A4** or **B4** or **C4**
- o Functionalizing insights: **A5** or **B5** or **C5**
- o Evaluating insights: **C6**

(d) Distinguish the **dominant** aim as described in Section 4.

(e) Identify the function of teacher and pupil for that specific minute. Decide if the function is guided-, joint-, or self-actualization. Check off the aim under **A1-5** or **B1-5** or **C1-5**. Do this according to the criteria described in Section 4.

(f) Count the number of questions the teacher and pupils ask during each minute. Record this in part D. An easy method is to make a mark in the row when a question is asked. The total number of questions per minute later can be recorded.

(g) On the reverse side of the table you should indicate the subject matter and grade for which the observations were made.

The table provides for a twenty-minute observation. If a more accurate observation is desired, use can be made of half-minute intervals of observation.

MODALITY TABLE: OBSERVING DIDACTIC MODALITIES

A. Guided-actualization: Teacher initiates (relationships and activities exemplified), teacher shows by making pronouncements and drawing relations via:

| | | | | | | | | | | | |
|-----------------------------|---------------------|---|---|---|---|----|----|----|----|----|---------|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | |
| 1. Foreknowledge | | | | | | | | | | | 1 |
| 2. Problem formulation | | | | | | | | | | | 2 |
| 3. Exposition | | | | | | | | | | | 3 |
| 4. Control of insights | | | | | | | | | | | 4 |
| 5. Functionalizing insights | | | | | | | | | | | 5 |
| | Number of questions | | | | | | | | | | T _____ |
| | | | | | | | | | | | S _____ |

B. Joint-actualization: Students and teacher initiate the relationships and activities together via:

| | | | | | | | | | | | |
|-----------------------------|---------------------|---|---|---|---|----|----|----|----|----|---------|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | |
| 1. Foreknowledge | | | | | | | | | | | 1 |
| 2. Problem formulation | | | | | | | | | | | 2 |
| 3. Exposition | | | | | | | | | | | 3 |
| 4. Control of insights | | | | | | | | | | | 4 |
| 5. Functionalizing insights | | | | | | | | | | | 5 |
| | Number of questions | | | | | | | | | | T _____ |
| | | | | | | | | | | | S _____ |

C. Self-actualization: Students initiate and search for themselves (self-activity) via:

| | | | | | | | | | | | |
|-----------------------------|---------------------|---|---|---|---|----|----|----|----|----|---------|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | |
| 1. Foreknowledge | | | | | | | | | | | 1 |
| 2. Problem formulation | | | | | | | | | | | 2 |
| 3. Exposition | | | | | | | | | | | 3 |
| 4. Control of insights | | | | | | | | | | | 4 |
| 5. Functionalizing insights | | | | | | | | | | | 5 |
| 6. Evaluation of insights | | | | | | | | | | | 6 |
| | Number of questions | | | | | | | | | | T _____ |
| | | | | | | | | | | | S _____ |

D. Questions and answers

| | | | | | | | | | | | |
|----------------------|---|---|---|---|---|----|----|----|----|----|--|
| | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | |
| 1. Teacher questions | | | | | | | | | | | |
| 2. Student questions | | | | | | | | | | | |