

## CHAPTER 4

### THE DIDACTIC MODALITIES

#### INTRODUCTION

Before an adult ventures to give a lesson to a class (a child), (ideally) he should be thoroughly trained to do so academically as well as professionally. He needs to understand his subject area, the child and the pedagogic. Command of a subject and teaching a subject comprise more than just shaking out a bag full (textbook full) of facts and formulas, stories and sums over the pupils in the class and merely hoping that **by chance** they will remember something from them afterwards. A child learns in **unique ways** that show no correspondence with the way one fills an empty vessel.

The effective preparation and planning of a lesson structure require scientific (i.e., pedagogic) insights as well as practical flexibility and knowledge of techniques such as those made clear in this book in general and in this chapter in particular.

In previous chapters, it was indicated how the lesson aim gives meaning and direction to planning a lesson structure while the ground forms, methodological principles and principles for ordering the learning material give a finishing touch to the form of the lesson. **Implementing the didactic modalities initiates the lesson's movement (dynamic)**. It can not be denied that, in spite of a clear lesson aim with a refined, delimited learning aim and a solid lesson form, in its practical execution, a lesson often fails. Therefore, there must be an additional component that especially is directed at the lesson's effectiveness. Thus, the aim of this chapter is to show how the principles of actualization, the modes of learning and the teaching aids, as aspects of a lesson, fill this void.

The ways in which each person is taught and instructed is something that survives long after most of the content has been forgotten. As with the forms, the modalities are universal, i.e., they are the same for all times, all cultures and in all countries. Therefore, the teacher can make use of them with confidence and security in his teaching design in order to improve his effectiveness.

Involuntarily, one thinks here of teachers who display a good spirit and disposition, zeal and dedication, clear and adequate exposition, precise control and thorough testing such that today this still stands out in our memory. Also, still clearly remembered are lessons in which the perceptible, the problematic, the surprising solutions or the boring drill exercises had figured prominently and where the effectiveness of a model or a program, as learning aids, were intensely lived-experienced. These are merely examples to substantiate the idea that even though the contents of the lessons mentioned have long been forgotten, the forms and ways of teaching survive.

From the above, it is clear that the teacher only can borrow from his knowledge and skills in his didactic design. That is, designing a lesson has to be thoroughly planned in clearly theoretical ways. In contrast to this, above and beyond such theoretical insights and careful preparation, the effect of his teaching also will depend greatly on the good judgment that both the teacher and child show in the lesson situation and the extent to which the actualization of particular principles of activity have become functional. The didactic modalities are the axle around which the course of the lesson revolves. They bring into motion the planned lesson structure. This movement is supported by the proper evaluation and judgment of the participants in each phase of the lesson. Therefore for each phase of the lesson it is necessary to reflect on which principles of actualization, what modes of learning and what teaching aids will be appropriate.

An attempt to analyze and clarify the concept "didactic modality" follows.

### **The concept "didactic modality"**

For any scientific, conceptual clarification it is necessary to view a matter from more than one angle. For the didactician it is possible first to isolate and describe what shows itself as constant, common and thus essential about a matter viewed from a number of different perspectives. Kant provides us with a perspective on the concept of modality when he identifies it as one of his categories of reality.

## An etymological conceptual analysis

The Latin word "modus" refers to a way or manner of doing. Thus, the concept "modus operandi" refers to a specific method by which one strives to attain a particular aim.

In everyday language, there are a number of words such as act, do, explore each of which embodies a typical mode of being or human way of living. On the basis of a word's broad, everyday meaning, we find that in the practical particulars of the matter differentiated meanings are ascribed to some of these words. Therefore, when a specific word is included in a particular didactic design, it can lead to confusion because it no longer has a direct and simple meaning. A theoretical plan stemming from the concept "exploration" easily can be misinterpreted by someone else as "activity". The consequence is the actualization of a lesson situation that can result in either a one-sided self-activity or a one-sided guided activity. The result of this is seen in the modes of learning when, on the basis of an incorrect understanding, excessive emphasis is placed on perceiving while a better effect can be attained with thinking, as a mode of learning.

However, in an attempt to overcome this problem, we will try to describe the essentials of a number of modes of living that have practical didactic value. Because these modes of living recur in all life and learning/teaching situations, they can be recognized, identified and their essentials described in didactic theory. Each **delimited mode of living** is placed in a didactic perspective and, as such, can be assimilated into future didactic designs as a **principle of actualization**. Thus, the general concept "activity", **as a mode of living**, after its essentials are analyzed, refined and described, takes on specific relevance for teaching practice as a **principle of activity**.

Before discussing more extensively this somewhat problematic building up of the structure of the didactic modalities, for the sake of a broader orientation, first we provide a schematic representation of the didactic modalities as a part-structure of the broader lesson structure.

## **A reduced structure**

### **Principles of actualization:**

- (a) Principle of activity:
  - (i) Guided activity
  - (ii) Self-activity
  
- (b) Principle of individualization:
  - (i) Guided individualization
  - (ii) Self-individualization
  
- (c) Principle of socialization:
  - (i) Guided socialization
  - (ii) Self-socialization
  
- (d) Principle of tempo differentiation:
  - (i) Guided tempo
  - (ii) Own tempo

### **Modes of learning:**

- (a) Sensing
- (b) Perceiving
- (c) Thinking
- (d) Remembering

### **Teaching aids:**

- (a) Instructional aids
- (b) Learning aids

The sole purpose of the following discussion of the different aspects of the modality structure is to point out their direct meaning and significance for a lesson design.

## **PRINCIPLES OF ACTUALIZATION IN DIDACTIC-PEDAGOGICAL PERSPECTIVE**

### **General perspective**

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· See Chapter 2, footnote on page 41 that includes “attending” as well as “imagining and fantasizing”.

In didactic theory, the word "actualization" is used with many connotations. However, essentially it has to do with recalling and making explicit "residues" (ideas, concepts, relations, methods, etc.) from earlier insightfully or incidentally mastered learning contents, forms or modes. Thus, the announcement of a lesson form such as "Today I am going to **tell** you ....", "This morning you are going to **do** an experiment...", calls up (actualizes) particular memories and experiences of earlier situations within which the same form had figured. The essential of conversation, as a ground form, or of independently doing an assignment are made immediately real (part of reality) with the announcement. Therefore, a child is able to anticipate the form of the lesson.

Earlier the sense and meaning of **actualizing foreknowledge** in the lesson structure was referred to. Here a foundation is prepared for a fruitful linking up with and giving meaning to the new content.

Van der Stoep contends that reproduction also is a form of actualization to the extent that reproduction means actualizing earlier cognitive or consciously mastered knowledge such as things that the learning person had memorized earlier.

Thus, there is mention of the same knowledge or principle(s) repeatedly being actualized as in the case of repeated reproductions. However, the repetition can also occur in a total activity which is entirely new to the learning person and where previously mastered knowledge, forms, and modes of doing have to be transferred to the new situation.

With the actualization of a particular didactic principle, it is assumed that a specific mode of life, in general, and its essentials as delimited and described, in particular, is actualized purposefully and formally in the anticipated, planned and re-instituted lesson situation, or actual opportunities are created within which it can function. With the actualization of the principle of activity, success is anticipated and realized in a situation in which the learning person is self-active in a preconceived way. Because the realization of a specific principle of actualization presumes a particular manner of teaching and learning, its choice should show a close relation to

the lesson aim. The good judgment and insight of both teacher and child regarding the lesson aim require that the self-activity be further differentiated and anticipated. At a certain moment in the course of the lesson, the child's **self-doing** must figure prominently rather than the teacher demonstrating or the teacher and pupil doing things together. This refers to the distinction between "guided activity" and "self-activity".

From the above, it is clear that activity (doing) is the mode of life around which the total structure of the didactic modalities turns. However, in order to be more complete and to be able to acquire a more direct meaning for didactic practice, we believe that further differentiation and explanation can only bear fruit.

## General principles of actualization

### *Principle of activity*

A person as openness has the freedom to act on the basis of his own willful choices. Each activity he initiates only attests to his choice and decision because as an intentional act, it always is directed from and propelled by the person as a totality. On the basis of a person's potentiality to anticipate future situations, to even go beyond reality in his anticipations, and to create a fictive world through speculative thinking, it is possible for him to embody his own desires, purposes and willful decisions in his activities.

As a living being, a person always is busy becoming and exploring and shifting and broadening his horizons. The concepts activity, exploration, dealing with, doing, self-doing, etc. all point to primordial ways of being a person and thus make such contrasts as "Inactive" or passive unjustifiable. (It also is essential to each function of the modalities that it is not easy to find contrasts of them).

The implication of this is that in his didactic design, the teacher can support a degree of activity from the child as this is expressed in the ways in which he perceives, thinks or remembers. In pedagogics, it is accepted that the child can never be passive in a situation but always, to a greater or lesser degree, shows receptivity and mobility.

However, it can, indeed, happen that although there are real attempts by the adults to provide help with the aim of actualizing a postulated principle, still the child does not proceed to continued, directed learning.

Although the effectiveness of the planned structure unequivocally is influenced by the good judgment and response of the child to the appeal of the situation, this must not be interpreted as the child being completely free. Each decision or activity of a person, in reality, is situation bound which implies that he already has had to attribute sense and meaning to the situation before he could discover himself in it and proceed to a "second seeing" of it. A person cannot discover himself merely by taking a passive attitude toward things. Only by entering reality and opening himself to it can there be real, effective teaching. Thus forming and changing a person require both guided activity (unlocking reality) and self-activity (learning).

The manner in which a child does things is not fixed, set and bound by nature but his going out to reality shows itself in different modes of learning. Also, in human life there never is a pause or static state but an incessant stepping out (ek-sisting) into reality.

Through responsible and accountable guidance and teaching, the child can be convinced of the benefits (values) of a particular attitude toward or interpretation of a situation. Doing things together also can initiate and modify work and in doing so impel acting and thinking on the basis of which insight and proficiency will more easily break through.

From the above discussion it is clear that simultaneous with the actualization of the principle of activity, a differentiation also is noticeable, namely, a mode of self-activity and of guided activity. Because each of these aspects is important for the effectiveness of the lesson situation, special attention is given to them below under the heading "Particular principles of actualization".

At this stage we cannot omit indicating that the movement and course of the lesson, as actualized by the didactic principles, imply a clear resemblance of the planned structure with the example as a

ground form of teaching. In constructing a lesson, form has to meet the demands of the category of accompaniment (guidance), the part-forms of demonstrating (doing before), doing things together and self-doing ought to be indicated. We have already pointed out that in planning the principles of actualization, in each phase of the course of the lesson it has to be indicated whether self-activity or guided activity (demonstrating, doing together) are primarily anticipated.

Viewed from a pedagogic point of view, such form and related ways of movement are fully justified and in reality are a scientific image of guiding where first the adult walks in front of the child, then with him and eventually behind him in his being-on-the-way to adulthood.

### *Principle of individualization*

The concept "world" is fluid and implies "something" that does not remain the same for all people and also not for all times and places.

The **meaning** of the activities of actualization then must be sought in the primordial fact that each person is "different" and can **change**. People not only differ from each other but show a unique individuality, particularity, peculiarity, uniqueness, freshness and originality.

The principle of individualization takes human openness as its point of departure. Individualization requires attributing meaning, self-discovery and constituting a personal lifeworld. The possibility of discovering oneself lies in the fundamental precondition that from the beginning, each person already shows an **identity**. As an individual, he does not show himself as "different" on the basis of the fact that he is identifiable. He does not manifest a formal, invariable and quantifiable identity but a dynamic personality. His individuality gets its **autonomy** in a becoming as an interactive event between what-I-am and what I-can-be. On the one hand, the **quality** or formedness of a person can be sought in the judgments that he expresses about his **being-a-person**. On the other hand, a person judges on the basis of his encounter with himself and the



degree to which his potentialities have become **potentialities-for-him**.

As a classic example of a purposeful attempt at individualization, the so-called Court-tutor education (Hofmeistererziehung) of the 18th century can be mentioned where each pupil was assigned his own teacher. For understandable reasons, this way of teaching cannot generally be applied in practice today and there has to be a search for possibilities of individualization within the framework of a class. For optimal effects, the activity that is mobilized cannot be allowed to stress one-sidedly only the aspect of teacher presentation but also has to allow for self-activity and self-forming of the pupils.

Consequently, actualizing the principle of individualization can never be justified merely as a psychological development or a process of maturation. Essentially this principle strives for actualizing ways of inter- and intra-communication. Individualization also means acquiring a unique style of dialogue or manner of carrying on a dialogue.

Each person learns in a unique way. Moments of openness to the outer world (intercommunication) can be distinguished from times when the subject withdraws into himself (intracommunication) and when he orients himself to place and space, forms of and ways of living.

These thoughts are elaborated on later under the concepts of Self-individualization and Guided Individualization.

### ***Principle of socialization***

The **meaning** of designing a situation within which socialization (as a principle of actualization) is done justice has to be sought in the concept "encounter".

Viewed from an educative point of view, **Dasein** (Being-there) is inseparably embedded in **Mitsein** (Being-with). The disclosure of intentional modes of being such as **being-with-each-other** and **being-in-relation-with**, simultaneously, constitute Dasein as **being-in-the-world**.

Also, for Karl Jaspers, being-in-communication is a fundamental precondition for all human existence and thinking. There is a close relationship between modes of learning (constituting) and the level on which dialogue is carried out.

As a principle of actualization for a particular mode of learning, socialization only acquires real meaning if it takes as its point of departure the primordial mode of being-with-others. Necessary relationships that also must be actualized have to be further reduced to a relationship between persons and things; this is a matter of intersubjective relationships and more specifically relationships within which both partners are able to change. Both the child and the adult need to be prepared to establish contact or carry on a dialogue in a serious situation. The adult always stands under the imperative of the educative task and the child is stimulated by becoming more conscious of himself as someone who wants-to-be-someone-himself. Although there is a need in human existence to communicate with another or to encounter each other, this does not mean that their individuality is negated. Indeed, what can occur is that they either supplement or thwart each other.

From the above, it is clear that the principle of actualization means that out of the "I" and "you", child and adult (as constituents of the event) an "us" is born. Both partners in such a merging of strength, resonance among activities, assistance and support of each other's strivings emerge from it only "richer". It is no wonder that the first and most original experience of a person is made in encounter with another person (mother) long before he is in a position to experience things.

### *Principle of tempo differentiation*

The purpose of each of these principles of actualization is to bring the planned structure (of the lesson) into effective motion. The motion in the lesson structure shows itself in the course of the lesson because there necessarily has to be a beginning, middle and end. If the movement during the beginning and middle assume too slow a tempo, a consequence can be that the end is concluded too

hastily. Conversely, it can also happen that the beginning is unnecessarily drawn out which promotes boredom.

In the lesson situation both the teacher and the child are co-responsible for the proper course or tempo of the lesson that is maintained. Again, it is a matter of proper judgment and clear anticipation. Unfortunately, both teacher and pupil can find themselves in a position where sometimes unreasonable demands are placed on them and, for example, they are expected to teach or learn at a tempo and rhythm that lies above their capabilities. For obvious reasons, it happens that just as often, irrespective of the required preparation and readiness of the pupils, they are forced to work at a slow tempo. A direct result of this is usually frustration which leads to activities that undermine authority.

In current classroom teaching, many pupils find themselves each period in a situation where they are expected, in the space of a few periods, to master a certain theme and to attain a particular level of proficiency.

The anticipation of a lesson situation within which tempo variation, as a principle of actualization, is fruitfully and effectively implemented, culminates in these two important aspects, namely:

1. A uniform lesson tempo cannot be maintained throughout the course of the lesson, but for each phase of the lesson it has to be judged anew by taking into account the child as well as the learning content. Thus, a slower tempo is required when exposing the new theme and a faster tempo in the functionalizing phase. When instruction is given to less gifted pupils, the tempo needs to be changed accordingly.
2. A second important aspect that must not be neglected in considering this principle of actualization lies in the part-concept "variation". As important as a good rhythm is with respect to the sequence of periods, equal value should be given to **stopping** and **changing** activities. There should be a balance between periods of guided and of free activity.

These matters also are discussed more fully later.

## **Particular principles of actualization**

In discussing the general principles of actualization--activity, individualization, socialization and tempo variation--it consistently was mentioned by each that there has to be further differentiation into the aspects of self-doing and guided-doing for the discussion to acquire a direct and unambiguous relevance for practice. In planning the teaching design, in each phase anew, it has to be shown where the emphasis of the formative (i.e., educative) event will be placed. Is this primarily going to involve the pupil's self-discovery where he enters reality in unique, naive, intuitive and original ways or is the guidance and unlocking of reality by the adult presumed?

To try to answer these questions, in the following two sections each of the principles of actualization will be elucidated from these two perspectives.

### **Principles of guided actualization (from the perspective of teaching)**

We have to take into consideration that the school largely takes over the function of the parents in order to place the child squarely before the past. In this task the school links up with the problems of the child's present situation to help him anticipate the future. The child is and remains to a large degree dependent on the help of the teachers. This need can range from a physical or security aspect to the solution to an abstract problem.

The school always offers the child the formal system of the modes and forms of living of adults. The task of the child then is, in his self-activity, to anticipate a future based on acquiring the image the adults represent to him.

The category of unlocking reality essentially constitutes the role taken by the adult in the didactic event. This announces in a direct way the intervention of adults with child.

### ***Guided activity***

Because each child can and must "act" from the beginning, at most the adult can direct, modify or supplement an appeal to the child that facilitates his world mastery. Opinions about what is meant by forming, educating and teaching have changed through the years. The reason for this is that there continually are departures from one or another science (theory) or from foundations sought for the event instead of by penetrating to the reality of the phenomenon itself (educating, forming, teaching) as a practical matter.

Each educative situation realizes itself in a teaching event. "Giving instruction" as an essential moment of an educative and teaching situation only is **meaningful** if there is "someone" to whom "something" (contents) is presented. Even with the most one-sided emphasis on the child as potentiality, still the necessity for the help of another remains.

Guided activities have their primordial foundation in the fact that adults and children live in the world together. This implies that the children are dependent on the educating of the adult, as someone who knows and understands, for their eventual attainment of such a **normative** aim as adulthood in general and also for actualizing necessary ways of living and teaching in particular. Earlier we indicated that the effect and formative quality of each phase of the course of a lesson actually and drastically change and are influenced by the sound judgment according to which the modes of learning are brought to actualization.

Van der Stoep elevates accompaniment (guidance) to a didactic category and thus accepts it as constituting a real, indispensable and essential aspect of all **didaskhein** (teaching).

Actualizing guided activities never can be reduced to activities by which the child is able to assimilate a pre-determined outcome on the basis of applying recipe-like methods and on the basis of the adult's psychological knowledge. There has to be an attempt to bring about a harmony and coordination between guided and self-activities. As an interpersonal act structure, a unity has to be attained between the two.

However, the adult must never go so far as to experience his failure(s) so strongly that he loses heart and, therefore, on the basis of rejecting the child, permits the child to try independently to find his way without help and support.

### *Guided individualization*

The meaning of guided individualization lies in this fundamental axiom: Although each person is born as potentiality, his becoming does not depend exclusively on this. That the virtues and potentialities of a person are fulfilled and that he is going to develop as an individual do not result merely from a process of maturation or a fixed process of growth.

Through directed and responsible guidance, a person can be helped to be himself. The adult's intervention only can acquire meaning for the child if he feels free to respond to it. "I" have to make myself "open" to another and I must go half-way to meet him.

Guided individualization also has the function that it can place earlier experiences (relations, dispositions, contents) in a new light or even elevate them and thus give them a new future perspective. Also, it can remove doubt and confusion.

From the above the essential of the principle of guided individualization can properly be implemented for the most part by a system of **differentiated** teaching. In a system of differentiated teaching, purposeful provision is made for direct assistance according to the level of readiness and potentiality of the group or individual. By selectively arranging the class, the pupils work in homogeneous groups with the possibility that the child's motivation to achieve will be optimally stimulated. The accentuation of the individual in the group and the emphasis on self-study contribute to more effective teaching. Thus the problem culminates in the fact that there is a search for forms and modes of learning by which the pupil is stimulated as an individual while he still remains one of a larger group. To do this requires a flexible and loose class context and supple organizational principles. Accordingly, the teacher's task is much broader and he is more than merely an organizer. He necessarily is an initiator.

### *Guided socialization*

As a person's way of living, guided socialization refers to an act of becoming a person where the subject or learning person is under the imperative of the phenomena of educating and forming and that, therefore, he feels himself compelled to loosen himself from the present, to emancipate himself from the past and move toward a state of greater independence and freedom. Although each child is able to anticipate this image of adulthood, he is and remains dependent on the support of the adults.

To approach the matter more directly and make a clearer perspective on the problem possible, forms of teaching such as the lesson conversation, the colloquium, the preliminary examination, teacher questions, etc., as familiar forms of guided socialization, have to be viewed more closely. For example, each of these forms of presentation and helpful intervention accept that the child is unable to find a way in the world for himself without other people in general and the adult in particular. As a matter of establishing relationships between juniors (pupils) and seniors (teachers), each educative teaching situation remains directed to the discovery of behavioral codes and social norms. However, especially at first it is necessary that the child learn in ways where he imitates the other in talking, playing, doing and even thinking. At the same time, he increasingly compares himself and his achievements with his fellow pupils and even with the teacher or guide. A child only can discover himself if he is in an intimate relationship with another.

From these insights, actualizing the principle of guided socialization is a meaningful aim. It is only when a child moves and works in a social context where he is purposefully guided that his motivation to achieve is optimally addressed and he can identify his potentialities. To be able to evaluate achievement as a didactic category, the child must feel secure about his place in a particular space. This can only be accomplished if the adult continually controls, supplements and modifies help if needed. In addition to this didactic implication there also is the more pedagogic view that the child only is able to experience safety and security in a situation where he is involved in an intimate relationship with the adult; however, this also can be

markedly promoted by experiencing and being aware of a stable class relationship (group influence). From this the indispensability and necessity of class and group teaching certainly are clear. This is an aspect that lies at the basis of John Dewey's pronouncements regarding his thoughts about "socialization". The individual has to be guided to participate in the social consciousness of a group (people).

However, there is a danger that through excessive guiding and influencing by another, too strong an emotionally colored relationship can be built up that overwhelms clear thinking and self-activity. Therefore, it is necessary that periods of socialization be alternated with times of individual activity but also, more particularly, with self-socialization. The appeal and invitation that arise in the relationship between adult and child have a strong emotional flavor that sometimes can block the child's intuitive and spontaneous activities.

### *Guided tempo*

One major objection that certainly can generally be leveled today against teaching is the unrealistic notion that all pupils have to move through the syllabus at the same tempo and with the same rhythm. In spite of the pupils' individual differences, potentialities, readiness and interests, there is an inflexible timetable followed with a move from "undigested" learning material in one subject to another. For example, the pupils may be expected to work together each morning of each day of the week for five hours. It also is expected that everyone in the same group or class simultaneously learns to master particular skills and insights.

When the diverse difference in the tempo among pupils is attended to, this necessarily points to implementing a multiplicity of achievement levels and providing a rank ordering by selecting, grouping, enriching and accelerating. Guidance has to be offered in such a way that potentialities will flourish with a tempo and rhythm that keep pace with the child's quality. By directed and differentiated guidance, the gifted can advance earlier and their assignments can be enriched and deepened while their tempo is quickened.



The tempo with which the adult teaches and unlocks reality has to be of benefit to the class. This does not mean that the teacher can feel confident as long as the tempo is decided by the average pupils in the group. The only result to which this can lead is **teaching to the average**. Equally detrimental and destructive is where the teaching is mainly directed to the few willing, gifted and even physically attractive pupils while (possibly unconsciously) the rest of the class is ignored. There also is a third unpardonable approach where especially the excessively vocationally conscious teacher directs too much time and attention to the derailed and less gifted pupils.

Finally, we refer to the cases where the teacher is so strongly organizationally attuned and therefore holds so strictly to the plan in his work scheme (lesson plan) and to the school clock that both the child and the subject matter are slighted.

Each teacher has to thoroughly take into account the fact that he works with **people**. Thus, there cannot be a guaranteed rhythm or identical tempo for everyone. Just as sometimes a person's pulse-rate increases and decreases on the basis of emotional as well as cognitive factors, so there has to be an allowance for change and variation in the tempo of the lesson in accordance with external and internal factors. For each phase of the course of a lesson the guidance has to vary and, depending on factors such as the child's readiness and the level of difficulty of the lesson content, each phase should be negotiated at a slower or faster tempo.

### **Self-actualization (from the perspective of learning)**

The meaning of self-actualization lies in one of the wonders of being a person, namely, that he is **intentionality**. Consequently, in each person many and varied potentialities lie slumbering and ready to be actualized. Self-actualization is inextricably intertwined with spontaneous and intuitive learning and, therefore, qualifies as a primarily personal matter in which the naive and subjective activities and lived-experiences of the individual have to be emphasized. This requires that the individual, as a total person, has

to enter his surrounding world and ultimately is subject to **self-actualization** guided by the teacher's norm-awareness.

Especially in the actualization of a lesson situation as striven for in the school, this subjective and personal activity of the child is decisive. Each self activity or moment of learning implies a personal dynamic which is impelled by a personal stake and willful decision, a proper disposition and attunement to achieve better in the future.

Each healthy and directed child is animated. He will not merely sit still and listen to another. Connected with this is the unique nature and structure of most subjects at school such that they evoke intracommunication and self-discovery in the pupils. In each subject area there are aspects suitable for this intracommunication and self-discovery. In geography, the pupils can draw maps themselves, in history they can construct their own tables and in a foreign language they can make up their own spelling lists.

Thus, where desirable and possible the pupils should be allowed to acquire original experiences. Self-activity and individual mastery provide the child not only with much more enjoyment and fun but the resulting discoveries are retained longer and more vividly.

### *Self-activity*

The fact is that no one else can learn something for a child. That from the beginning he is someone who can and will learn clearly places him under the imperative that he also must learn in order to give form to his own being a person. The preconditions for becoming a person and for forming are in the potentiality to change that already exists for the learning person. To be able to change, a child has to learn. **Can** as **potentiality**, **will** as **reality** and **must** as **necessity** once again refer us to the functions of the category of modality. Self-activity, as a spontaneous and natural activity of a person, is best actualized in situations where the possibility, truth and necessity of the matter are pointed out. The acquisition of original experience can occur best in familiar and near to real situations because they make it easier for the child to reach a personal willful choice, resolve and decision.

Because these intentional activities of a person are stimulated by a will to emancipate and actualize oneself, this also supports his potentiality and readiness to anticipate and choose. Along with modern man's estrangement and the life-estrangement of his lived-experiences, he is increasingly dependent on the other's guidance. In order to stimulate self-activity and self-doing as strong subjective moments, purposeful situations have to be designed within which the learning person is required to participate spontaneously and intuitively. The form and content of the situation have to be such that those modes of learning arise that are known to be conspicuous to the child and contain the possibilities of optimally making use of his potentialities.

The concept "self-activity" can be distinguished with difficulty from such concepts as exploring and constituting which clearly refer to recognizing the individual as a spiritual, autonomous and morally self-determining being. At the same time, self-activity implies a recognition of the uniqueness of each person with his own, different and inherent potentialities.

### *Self-individualization*

The word "self-individualization" perhaps seems at first impression to be a tautology. However, when it is more sharply analyzed and viewed in the context of self-activity as an expressive form of self-actualization, it acquires a differentiated and refined meaning.

The child acts under the imperative of wanting-to-be-someone-himself. Each constitution or design of a personal lifeworld implies self-activity, self-discovery of new potentialities and establishing new relationships.

While initially the child is very dependent on the help and guidance of the adult because of his incompleteness of knowledge, learning and skills, with more experience and even with an increasing formedness, better judgment and firmer willful decisions arise. Just as the child learns what to choose among a number of possibilities, he acquires a firmer grasp of what (really) is and accordingly the diffuseness of his world and his "openness" to external influences are decreased. The more he loosens himself from the "guidance" of

another, the more he shows directedness, functionality and technique in his modes of learning. **We say that his learning activities show a personal style.** In designing a lesson situation, opportunities are offered for such an elevating of the child's level of dialogue and the actualization of his motivation to achieve.

On the basis of the previous arguments, self-individualization refers to a participation by way of actual modes of learning which are motivated by pathic and gnostic lived-experiences within which there is not only rational thinking (i.e., deliberating and modifying as supplementing and creating) but where a good disposition and healthy attitude toward the matter are required. Therefore, it is only possible for a child to lived-experience his achievements and thus discover himself when they already flow from self-activity as a personal, independent willful decision. As long as he still just imitates the adult and carries out his commands, there is not yet any feeling of self-pride and achievement.

Actualizing the principle of self-individualization is closely identified with the stimulation and manifestation of the motive to achieve. In practice, this can really be aimed at and realized with the implementation of lesson forms and modes of learning within which group work, problem solving and free, creative activities are prominent.

### ***Self-socialization***

Although situations of doing things together (playing, talking, working together) are purposefully planned daily in our schools, it is necessary, as far as it is possibly warranted, that they be initiated by the child and continued and repeated at his own risk. The pupils' uniqueness is so profound and children's going out (to the world) are so different from an adult's that unnecessary help will block and disturb them.

Self-socialization is aimed at the actualization of learning forms and activities by which the child is given the opportunity to move away from the adult's influence and guidance and be involved playfully, naively and spontaneously with his peers. In order to change the implicitness with which the adult imparts values and patterns and

thus to eliminate or just decrease the harm and disgrace of a **feigned culture** and of **imported fashions**, the child has to learn to live in situations in which he is "fresh" and "naive" and become meaningfully acquainted with social codes and norms and in which he even has to search for the meaning of his existence as a member of a group. In this way, the child realizes that the ways (behaviors, disposition, choice of attitudes, standards) he deals with others has an influence on the relationship he builds up with his world and in particular with his fellow pupils. The attitude of each child and his possibilities really are carried by the group atmosphere.

Only when an individual gives himself unconditionally as a member of a group and is ready to serve can he lay claim to help and assistance from the other. Thus, the term self-socialization, as a principle of actualization, has a right to exist in didactic theory, and must be rejected as merely being a contrast in itself (e.g., to self-individualization).

### *Personal tempo*

The inexperienced teacher certainly can be nothing more than somewhat skeptical about the claim that it is possible that a child is able to set his own pace. Is this then not directly contradictory to the generally accepted view that a child is a seeker of support and in need of help? With greater experience and an intimate lived-experiencing of the child's varied modes of learning, it becomes all the more clear that the value of this principle of actualization can never be too highly estimated. On the basis of the fact that each person has a unique, particular potentiality to acquire knowledge and learn in general, he ought to pave his way through the world at his own tempo and in unique ways. This implies that each child differs (in his own tempo) and will learn to walk, talk and acquire insight into his world with a personal style.

Learning at one's own tempo prevents the tempo of the adult or of the group from leaving the child behind or the other way around, that his potential for a faster tempo is restrained.

That each person lives and does things at his own tempo and with a recognizable rhythm is a reality that no one can deny. Everyone

discovers early in his life that the tempo with which another does things is too fast and that therefore he falls behind or conversely that it is too slow for him and thus frustrating. By actualizing this principle, the child is helped to compare his **own activities** with those of his competitors, but he also acquires greater dexterity and at the same time appropriates for himself a unique life and learning tempo. Practicing to and from certain insights, practicing to better attending, concentrating and accuracy all are aspects that can contribute to an improvement of the child's learning tempo. All of these moments of controlling, evaluating and functionalizing are part of a person's daily ways of living and, therefore, have direct relevance for the practice of teaching. By compelling the pupils to approach their work in more critically and controlling ways, they are forced to a natural and meaningful differentiation in tempo. The more confident and gifted pupil necessarily will make fewer mistakes and repetitions and thus progress faster.

With each of these principles of actualization it has become clear that their effects are primarily observed in the modes of learning that are actualized by them. Therefore, it is certainly meaningful to more closely describe the place and meaning of the various modes of learning and the use of teaching aids as necessary aspects of the didactic modalities. Because sensing is the first, basic mode of learning, we will proceed from a treatment of sensing to the other modes of learning. In this chapter, if all modes of learning are dealt with in the same way, this will lead to unnecessary repetition.

## **MODES OF LEARNING: SENSING AND THE CHOICE OF TEACHING AIDS**

Sensing as a mode of living actualizes itself largely in the pathic-affective (i.e., emotional) attunement of a pupil. Therefore, as a mode of learning, when made use of by the teacher in subtle and deliberate ways, it can have a decisive influence on the learning result in so far as it contributes to intrinsically stimulating the child. Depending on the learning aim to be attained, sensing is the point of departure, the so-called **entrance or door** that makes the lesson problem perceptible for the first time. Each sensing is a personal experiencing. It is the point of departure for all future modes of learning and therefore addresses the entire person and not only the

cognitive. With the help of teaching aids, a child is confronted with something strange, foreign, worth knowing, etc. that he no longer can accept as obvious. His sensing awakens in him doubtful and contradictory ideas. He lived-experiences the matter as problematic.

Here the teaching aid chosen has to contribute to stimulating wonder and thus provide access to the core of the matter. Sensing, as a mode of learning, is characterized by the learning person's spontaneity, naturalness and dynamism. A child's sensing can be fruitfully guided by effective teaching aids and successively actualized with the aim of again stimulating the child to fully participate.

In order to illustrate what the teacher can use in practice as an **entry** into different circumstances, we provide a few indications.

At a fruitful or planned moment, the teacher shows the class or individual child a print, poster, map, model or a real object and expects that the specific, but yet unexpected and different form, color, order, movement, sound, description or perspective will provoke the child and capture his wondering.

The teaching aid is chosen in each phase of the course of the lesson on the basis of the support it offers the modes of learning such as when it cuts to the anticipated result because it manifests inherent, particular part-aspects, as essentials of the matter. However, the choice of a particular teaching aid should never be justified solely on the assumption that it can be amusing to the child.

Thus, for example, in teaching geography, use can be made of colored sections of a world map with good results to carefully indicate a first, global or physiognomic impression of what the problem is. With equally great success, connections can be found with an interesting discussion of one or another voyage of discovery, a radio or television broadcast to awaken surprise and a degree of uncertainty in the child.

### **Teaching aids**

In this argument we continually make use of the word "teaching aids". By this we summarize the old distinction that is made between teaching and learning aids. The concept "aids" also is not acceptable because it is too broad and includes too much such as, e.g., air-conditioning, times tables, etc. In contrast to this, a concept such as audio-visual aids, in its turn, is too delimiting and excludes other important teaching aids that lie beyond the visual and auditory senses.

### **The distinction between teaching and learning aids**

The distinction between teaching and learning aids is still useful. When there is more emphasis on unlocking reality as the perspective argued from and the teacher's guidance is of primary focus, there has to be a search for **teaching aids** that supplement and make the presentation more effective. As an example, a teacher's use of a chalkboard in his exposition of new learning content is mentioned. Although the child also has to and will learn, still this has to do primarily with the teacher's exposition and teaching. As a teaching aid, the chalkboard contributes directly to better teaching, i.e., indirectly to effective learning. Similarly, the role and meaning of **learning aids** such as a program outline can be indicated and reasoned about.

Where teaching aids are viewed as an integral part of the lesson structure, in general, and of the didactic modalities, in particular, it certainly is important at this early stage to interpret the meaning of teaching aids in terms of the principles of actualization.

### **The meaning of the teaching aids**

The ultimate aim and final purpose of all teaching is that there is an attempt to bring about a balance and confluence between the preparation and planning **and** the actualization and dynamic of the practice. Effective teaching culminates in this coupling between theory as a matter of promise and practice as a matter of execution.

Without trying to be complete, we indicate only briefly how the principles of actualization can contribute to establishing a favorable



climate and help bring about a fruitful moment for learning and teaching. A few examples will suffice.

### **The principle of activity and teaching aids**

It would be difficult to deny that essentially the course of teaching is established to give rise to a particular liveliness, motility and skillfulness of the child with respect to particular aspects of reality. By unlocking reality for the child and by providing direction for his learning activities, the adult does not leave him to his own devices. During this activity of guiding, the adult intervenes intensely with the child and tries to direct his teaching such that it results in the child achieving better and becoming more skilled. The teacher has to try to plan his presentation so that it is not vague and diffuse but is specific and makes demands that the child has to meet. It has to compel the child to self-activity. Van der Stoep believes that this imperative functions so strongly that its authority still holds even in a primarily auto-didactic situation (e.g., in the case of programmed instruction).

Although activity, as a principle of actualization, is used to help the child engage in self-discovery, self-activity means, further, that there always are limits that have to be exceeded and possibilities (problems) that have to be interpreted. For this the child needs help which can mean the use of teaching aids.

However, the meaning of activity really lies in the fact that a child unquestionably is someone who wants to and is able to become someone himself and the guidance for this has to be directed also at placing in the foreground the unknown, the attractive, the adventurous, the beautiful, the proper, the recurring and the necessary. As a theory, the didactic modalities have to be planned such that their implementation will accompany guided sensing, perceiving, thinking and remembering. Thus, each lesson situation can and must be so planned that in each phase consideration is given to illustrating (in the broadest sense of the word). Since the time of Pestalozzi, didacticians have believed, and still accept today, that illustrating reality is of phenomenal importance for effective learning. By illustrating is not meant the use only of audio-visual materials but rather involves the entire activity of experiencing and

lived-experiencing (as well as the modes of learning when viewing what is illustrated).

The meaning of observing (aanskou) is summarized by Van der Merwe: “Observing is that personal taking a position, total act of sensory experiencing by a subject, as a totality-in-function in communication with reality, who momentarily is lived experiencing in the lifeworld where there is an actualization of intentionalities, that as constitutive foundations include the primarily pathic way of lived experiencing of **sensing** as well as the predominantly gnostic ways of lived experiencing of **perceiving, imagining, fantasizing, thinking, actualizing intelligence** and **remembering.**”

Thus in practice, actualizing the principle of activity differentiates itself into a number of modes of learning which, for the purpose of this discussion (namely, to strive for a practice that promotes effective learning), can more easily be taken as a point of departure for the fruitful choice and implementation of teaching aids. Because the modes of learning lie closer to practice than the principles of actualization such a discussion also has a more specific and immediate relevance to the practice of teaching.

### **Modes of learning and teaching aids**

For us to be able to choose and implement teaching aids on a solid foundation and not build up a lesson structure around a teaching aid that is fortuitously available, we try to show the relationship between particular modes of learning and possible teaching aids that can improve learning.

### ***Sensing and teaching aids***

Sensing is a mode of learning with a strong affective flavor and it lays the foundation for all subsequent modes of learning which differentiate themselves as more cognitive in nature. The essential of sensing as a mode of learning can be typified with the concept wondering. The quantity and quality of wondering awakened in the child during sensing serve as criteria for effective learning in this phase of the course of the lesson. The quality of the lived-

experience of wondering is directly related to sensing the matter as something unexpected, unfamiliar, different, etc. To promote the effect of sensing, therefore, there can be a choice to use a teaching aid, if feasible. The emphasis should fall especially on the effectiveness of the **teaching aid** to supplement the matter that must be viewed or the situation within which the event has to be actualized. Where this has to do with a temporal, global view, especially factors such as form, color, order and dynamic provide important points of departure for the choice of an aid. For example, here we think of the use of a diagram with a circle drawn within a square where the learning aim is to determine the area of a circle. Part-aspects of the solution should already be perceptible in the teaching aid, otherwise it will not be able to have meaning and then shows itself only as **amusing** without further directing the learning event.

As far as the quantitative aspect of wondering as a criterion is concerned, there especially has to be a vigilance against a flooding on a pathic (affective) level. Sometimes, a child is so strongly accosted affectively and so emotionally swept up that he finds it difficult to proceed afterwards to a more distanced and cognitive perceiving in his striving to attribute meaning and order to the matter.

It is especially elementary school teachers as well as teachers in subjects such as history, Bible study, languages who are guilty of "stifling" their pupils with digressing and amusing visual materials that excessively sweep them up.

Teaching aids that stimulate the child, while providing a stabilized foundation for learning, can mobilize and direct the attribution of sense and meaning by perceiving. The teaching aid can only appeal to the child if at least it embodies "something" that is "strange" to him. There has to be mention of dialogue supplementing and elevating. Therefore, it is meaningless to want to again teach pupils who have at their disposal a richly varied field of experience with the help of concrete material. Choose the teaching aid in accordance with the child's level of readiness.

### *Perceiving and teaching aids*

As a more cognitive mode of learning, perceiving is directed to attributing meaning which implies that the child already has distanced himself from the matter. Thus, the teaching aid should contribute to arriving at an improved **self-** as well as **guided-reduction** (of the new content). In this way, what is constant, valid and essential are made visible. At this moment, the choice has to do with what teaching aids can be implemented to make the problem more easily discernible and formulatable.

In this phase of the course of the lesson, the choice and use of teaching aids should serve to let the **problem** stand out more clearly, to distinguish among a number of possibilities and to indicate **points of fixation** which can serve as points of orientation for further **reduction**. Thus, a model with colors or one that can be dismantled, as well as an effective chart can be used to illustrate what is important and essential for attributing meaning. In contrast to the function of the teaching aid in the phase of sensing, namely, to provide a total view or global gestalt, for effective perceiving there has to be a search for aids that promote a more **business-like** and **objective** way of learning (perceiving). They have to compel the pupil to take a distance from his earlier amazement and wonder through **analyzing the matter** and **breaking it open**.

As an example, one thinks of a case where the teacher has presented a poem in a dramatized or improvised form and indeed in such a way that the pupils have lost themselves in it. After this, he should choose teaching aids that are effective in assisting the pupils to confront relevant problems. In this way, he succeeds in forcing them to a more objective attitude and to cognitive perceiving which are necessary for an objective interpretation of the poem.

With the statement of the problem, the pupils arrive at self-discovery and they become aware of their own possibilities and deficiencies. In connection with a freer class, it is possible for the pupils to choose their own learning aids and work alone or in groups at their own tempo.

The possibilities offered by implementing teaching aids (material, machines) for working together in groups with the same apparatus simultaneously promote socialization.

The use of teaching aids for contributing to more effective perceiving, as a way of actualizing the principle of activity, also is at the core of popular forms of teaching such as project and differentiated teaching.

Through analytic perceiving, the child more quickly and easily arrives at distancing and self-discovery which, in their turn, are the preconditions for the security and confidence needed to venture to the following phase and make the leap to thinking.

### *Thinking and teaching aids*

Through acts of perceiving the pupils have consciously brought to light a number of disconnected concepts and ideas that now have to be joined together into a **profile** by acts of thinking. Because thinking can only progress conceptually, it always is an objective way of learning. The problems that have become visible through perceiving now have to be cognitively broken through. The first help that can be offered here is teaching aids that assist in building up for oneself a better **relief** (i.e., contrast) by systematizing, schematizing, synthesizing, classifying, etc.

Here we will distinguish between teaching aids that help promote reproductive thinking and productive thinking. On the one hand, aids will be chosen for their value in allowing known structures to appear in a new relationship or context as is generally described by the concept of restructuring. Here especially aids such as a slide projector, a film, a print can be well utilized because they can be "adapted" to the demands of the situation. In reality, it is earlier representations that are reproduced anew and by means of the teaching aid or explication of the teacher become changed into a new whole. On the other hand, there has to be a search for teaching aids that lay bare insights into the essentials of the matter, relationships and methods so that the learner acquires the security and confidence to enable him to think productively (creatively). Here a number of familiar concepts can be indicated as modes of

thinking on this level such as structuring, transcending, synthesizing, fantasizing, speculating, reasoning and construing but they cannot be discussed here.

By thinking, the learner arrives at a solution to the problem, to a refined concept formation and to an insightful acceptance of what truly or really is.

The norm for the choice of teaching aids on this level has to be sought in the answer to the following question: What help can and must I provide to actualize the learner's intelligence?

From discussions of leading psychopedagogues it seems that on this level no direct help can or should be given and that each child should be given the opportunity, on the basis of his foreknowledge and the teacher's earlier preparation, to wrestle independently with the problem in order to thus more strongly lived-experience his "detachment" (from the adult). Therefore, in this phase the teacher's help is indirect. On the one hand, he provides help beforehand on the basis of his anticipation of certain "bottlenecks" and, on the other hand, as help to those who stagnate or underachieve. In the latter cases each child should be dealt with individually and there should be a search for the causes.

The assistance the teacher gives beforehand on the basis of his anticipations should be incorporated into his general planning (of the lesson).

### ***Remembering and teaching aids***

A person has an objectifying synoptic view by which the perspectives of a number of separate acts become integrated into a unity. As a mode of learning, remembering demands that the child consciously acquire a relationship in the present with the past. What is accepted as a solution now has to be practiced until it becomes a personally learned possession. Exercising insight means actualizing the newly acquired! There has to be a search for teaching aids that help with quick review (tables, diagrams, graphs) but also for aids for controlling (flash cards, programs, lists of questions, slide projectors, etc.). Here the main concern is with

ordering, schematizing, designing, reproducing, drilling--all ways of memorizing. It especially is the board scheme or diagram, together with the lesson, by which the disconnected points are built up into a synoptic profile that can allow the child to rehearse the **lesson event**. This also makes the construction of personal summaries and notes meaningful. However, the control should occur as quickly as possible to have the support and effect to build again on this rehearsal. Therefore, certain teaching aids are used such as slide projectors, prints, previously worked out answers, memoranda and teaching machines--all examples of guided control-- in order to control the new content.

However, remembering means much more--it involves functionalizing which is needed so the new insights become integrated with the foreknowledge into a new structure. Where this has to do with the concept **ordering**, constructing a synoptic and differentiated image of the learning contents is very closely related to the concept "taxonomy" and with the question of planning in general and illustrating in particular.

Remembering as a mode of learning also strives to integrate the new with the foreknowledge. Thus, there is an attempt to make relationships, general methods, etc. discernible to help elevate a particular disposition to a higher level. Integrating and breaking through to a higher level of dialogue, however, require that the pupil's motivation to achieve be stimulated and that the necessity and applicability of the concept be noticed. Thus, here profitable use can be made of teaching aids that show these functional aspects, applications and technical uses and in doing so make the pupil more flexible in searching for **additional** possibilities of transfer.

### **Teaching aids and the phases of the course of a lesson**

By indicating the function of a number of teaching aids as planned for each phase of the course of a lesson, the aim is to offer guidelines to a teacher who later is going to establish his own practice. In no sense is a claim of completeness made here.

**Phase of the lesson:**

**Function of the aid(s):**

1. Actualizing foreknowledge	Synopsis, schematizing, reducing
2. (a) Stating the problem	Actualizing sensing and perceiving (relations, reduction, analysis)
(b) Formulating problem	Synthesizing (hypotheses), focus, order
3. Exposing (presenting) the new	Reproductive and productive thinking (distancing, contrasting, structuring)
4. Controlling the new	Schematizing, related matters
5. Functionalizing (transferring)	Exercising, integrating
6. Evaluating (testing)	Reducing to essentials, structures, relations and methods