

CHAPTER 4 THE DIDACTIC MODALITIES

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INTRODUCTION

Before an adult ventures to give a lesson to a class (a child), he/she should be thoroughly trained to do so academically as well as professionally. He/she must understand his/her subject area, the child, and the pedagogical. 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** which show no correspondence with the way one fills an empty vessel.

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

In previous chapters, it is 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 cannot be denied that, even with a clear lesson aim with a refined, delimited learning aim, and a solid lesson form, in its execution a lesson often fails. Therefore, there must be an additional component which is especially directed to 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 which 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/her teaching design to improve his/her 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 boringly 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 observation that even though the contents of the lessons mentioned have long been forgotten, the forms and ways of teaching survive.

From the above, the teacher can only borrow from his/her knowledge and skills in his/her didactic design. That is, designing a lesson must be thoroughly planned in clearly theoretical ways. In contrast to this, above and beyond such theoretical insights and careful preparation, the effect of his/her teaching also will depend greatly on the good judgment which both the teacher and child show in the lesson situation and the extent to which the actualization of 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, first, it is possible to isolate and describe what shows itself as constant, common, and, thus, essential about a matter viewed from 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 an aim.

In everyday language there are several words such as act, do, explore, each of which embodies a typical mode of being or human way of living. Because 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 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 which 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, because 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, to overcome this problem, we will try to describe the essentials of several modes of living which 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, we first 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 socializing:
 - (i) Guided socializing
 - (ii) Self-socializing

- (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

* 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) 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 can anticipate the form of the lesson.

Earlier, the sense and meaning of **actualizing foreknowledge** in the lesson structure is 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 is also a form of actualization, to the extent that reproduction means actualizing earlier cognitive or consciously mastered knowledge such as things which the learning person had memorized or learned 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 must be transferred to the new situation.

With the actualization of a 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 reinstated 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 during 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, an activity (doing) is the mode of life around which the total structure of the didactic modalities turns. However, 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 by his/her own willful choices. Each activity he/she initiates only attests to his/her choice and decision because, as an intentional act, it is always directed from and propelled by the person as a totality. Because of a person's potentiality to anticipate future situations, to even go beyond reality in his/her anticipations and to create a fictive world through speculative thinking, it is possible for him/her to embody his/her own desires, purposes, and willful decisions in his/her activities.

As a living being, a person is always busy becoming, exploring, and shifting and broadening his/her 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/her didactic design, the teacher can support a degree of activity from the child, as this is expressed in the ways in which he/she perceives, thinks, or remembers. In pedagogics, it is accepted that the child can never be passive in a situation, but always, to some degree, shows receptivity and mobility. However, indeed, it can 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 is unequivocally 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 is situation-bound, which implies that he/she already has had to attribute sense and meaning to the situation before he/she could discover him/herself in it and proceed to a "second seeing" of it. A person cannot discover him/herself merely by taking a passive attitude toward things. Only by entering reality and opening him/herself 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 way a child does things is not fixed, set, and bound by nature but his/her 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) of him/herself into reality.

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

From the above, it is simultaneously noticeable that, with the actualization of the principle of activity, is a differentiation, i.e., 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 must 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 pointed out that, in planning the principles of actualization, in each phase of the course of the lesson, it must be indicated whether self-activity or guided activity (demonstrating, doing together) are primarily anticipated.

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

Principle of individualization

The concept "world" is fluid and implies "something" which does not remain the same for all people and 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 which, from the beginning, each person already shows an **identity**. As an individual, he/she does not show him/herself as "different" because he/she is identifiable. He/she does not show a formal, invariable and quantifiable identity but a dynamic personality. His/her 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 which he/she expresses about his/her **being-a-person**. On the other hand, a person judges based on his/her encounter with him/herself and on the degree to which his/her potentialities have become **potentialities-for-him/her**.

As a classic example of a purposeful attempt at individualization, the so-called Court-tutor education (Hofmeistererziehung) of the 18th century is mentioned, where each pupil is assigned his/her own teacher. For understandable reasons, this way of teaching cannot generally be applied in practice today and there must be a search for possibilities of individualization within the framework of a class. For optimal effects, the activity which is mobilized cannot be allowed to one-sidedly stress only the aspect of teacher presentation but must also 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 him/herself (intra-communication) and when he/she orients him/herself to place and space, are forms of and ways of living.

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

Principle of socializing

The **meaning** of designing a situation within which socializing (as a principle of actualization) is done justice must 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, socializing only acquires real meaning if it takes as its point of departure the primordial mode of being-with-others. Necessary relationships which also must be actualized must 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 must 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 him/herself as someone who wants-to-be-someone-him/herself. 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, 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/she can 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 during the lesson because there necessarily must 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 which 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 which 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 usually is frustration, which leads to activities which undermine authority.

In current classroom teaching, in each period, many pupils find themselves in a situation where they are expected, in the space of a few periods, to master a certain theme and to attain a certain 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 must be judged anew by considering 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 must be changed accordingly.
2. A second important aspect which 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, socializing and tempo variation—it is consistently mentioned by each that there must 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 must 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/she 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 are elucidated from these two perspectives.

Principles of guided actualization (from the perspective of teaching)

We must consider that the school largely takes over the function of the parents 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/her anticipate the future. The child is and remains largely 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/her self-activity, to anticipate a future based on acquiring the image the adults represent to him/her.

The category of unlocking reality essentially constitutes the role taken by the adult in the didactic event. This directly announces the intervention of adult with a 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 which facilitates his/her 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 is realized in a teaching event. "Giving instruction," as an essential moment of an educative and teaching situation is only **meaningful** if there is "someone" to whom "something" (content) 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 by the adult as someone who knows and understands, for their eventual attainment of such a **normative** aim as adulthood, in general, and for actualizing necessary ways of living and teaching, particularly. Earlier we indicated that the effect and formative quality of each

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

However, the adult must never go so far as to experience his/her failure(s) so strongly that he/she loses heart and by rejecting the child, he/she permits the child to try to independently find his/her 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/her becoming does not depend exclusively on this. That the virtues and potentialities of a person are fulfilled and that he/she 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 him/herself. The adult's intervention can acquire meaning for the child only if he/she feels free to respond to it. "I" must make myself "open" to another and I must go half-way to meet him/her.

Guided individualization also has the function of placing 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/she 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/she is more than merely an organizer. He/she necessarily is an initiator.

Guided socializing

As a person's way of living, guided socializing refers to an act of becoming a person where the learning person is under the imperative of the phenomena of educating and forming and that, therefore, he/she feels him/herself compelled to loosen him/herself from the present, to emancipate him/herself from the past and move toward a state of greater independence and freedom. Although each child can anticipate this image of adulthood, he/she 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, must 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 him/herself without other people, in general, and the adult, particularly. 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/she imitates the other in talking, playing, doing and even thinking. At the same time, he/she increasingly compares him/herself and his/her achievements with his/her fellow pupils, and even with the teacher or guide. A child can discover him/herself only if he/she is in an intimate relationship with another.

From these insights, actualizing the principle of guided socializing is a meaningful aim. It is only when a child moves and works in a social context where he/she is purposefully guided that his/her motivation to achieve is optimally addressed and he/she can identify his/her potentialities. To be able to evaluate achievement, as a didactic category, the child must feel secure about his/her place in a space. This can only be accomplished if the adult continually controls, supplements and modifies help if needed. In addition to this didactic implication, there is the more pedagogical view that the child is only able to experience safety and security in a situation where he/she 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 which is at the basis of John Dewey's pronouncements regarding his thoughts about "socialization". The individual must 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 which overwhelms clear thinking and self-activity. Therefore, it is necessary that periods of socializing be alternated with times of individual activity but also, more particularly, with self-socializing. The appeal and invitation which arise in the relationship between adult and child have a strong emotional flavor which sometimes can block the child's intuitive and spontaneous activities.

Guided tempo

One major objection which today can generally be leveled against teaching is the unrealistic notion that all pupils must move through the syllabus at the same tempo and with the same rhythm. Irrespective 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 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 must be offered in such a way that potentialities will flourish with a tempo and rhythm which 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 must be of benefit to the class. This does not mean that the teacher can feel confident if 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 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/her work scheme (lesson plan) and to the school clock that both the child and the subject matter are slighted.

Each teacher must thoroughly consider the fact that he/she works with **people**. Thus, there cannot be a guaranteed rhythm or identical tempo for everyone. Just as sometimes a person's pulse increases and decreases because of emotional as well as cognitive factors so there must be an allowance for change and variation in the tempo of the lesson in accordance with external and internal factors. For each phase of a lesson, the guidance must 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, i.e., that he/she 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 must be emphasized. This requires that the individual, as a total person, must enter his/her 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/she will not merely sit still and listen to another. Connected with this is the unique nature and structure of most subject matter at school such that they evoke intra-communication and self-discovery in the pupils. In each subject area there are aspects suitable for this intra-communication 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 not only provide the child 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/she is someone who can and will learn, clearly places him/her under the imperative that he/she also must learn to give form to his/her own being a person. The preconditions for becoming a person and for forming are in the potentiality to change, which already exists for the learning person. To be able to change, a child must 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/her potentiality and readiness to anticipate and choose. Along with modern man's estrangement and the life-estrangement of his/her lived experiences, he/she is increasingly dependent on the other's guidance. To stimulate self-activity and self-doing as strong subjective moments, purposeful situations must be designed within which the learning person is required to participate spontaneously and intuitively. The form and content of the situation must be such that those modes of

learning arise which are known to be conspicuous to the child and contain the possibilities of optimally making use of his/her potentialities.

The concept "self-activity" can be distinguished with difficulty from such concepts as exploring and constituting, which 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/her own, different and inherent potentialities.

Self-individualization

At first impression, perhaps the word "self-individualization" seems 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-him/herself. 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/her 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 possibilities, he/she acquires a firmer grasp of what (really) is and, accordingly, the diffuseness of his/her world and his/her "openness" to external influences are decreased. The more he/she loosens him/herself from the "guidance" of another, the more he/she shows directedness, functionality, and technique in his/her modes of learning. **We say that his/her 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/her motivation to achieve.

From the previous arguments, self-individualization refers to a participation, by way of actual modes of learning, which are motivated by pathic (affective) and gnostic (cognitive) lived experience 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/her achievements and, thus, discover him/herself when they already flow from self-activity, as a personal, independent, willful decision. If he/she still merely imitates the adult and carries out his/her 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 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-socializing

Although situations of doing things together (playing, talking, working together) are purposefully planned daily in our schools, it is necessary, as far as possibly warranted, that they be initiated by the child, and continued and repeated at his/her 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/her peers. 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 must learn to live in situations in which he/she is "fresh" and "naive", and becomes meaningfully acquainted with social codes and norms and, in which he/she must even search for the meaning of his/her existence as a member of a group. In this way, the child realizes that the ways (behaviors, disposition, choice of attitudes, standards) in which he/she deals with others has an influence on the relationship he/she builds up with his/her world and with his/her fellow pupils. The attitude of each child and his/her possibilities are carried by the group atmosphere.

Only when an individual gives him/herself unconditionally as a member of a group, and is ready to serve, can he/she lay claim to help and assistance from the other. Thus, the term self-socializing, as a principle of actualization, has a right to exist in didactic theory and must be rejected as merely being a contrast 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/her 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 clearer that the value of this principle of actualization can never be too highly estimated. Because each person has a unique potentiality to acquire knowledge and learn, in general, he/she ought to pave his/her way through the world at his/her own tempo and in unique ways. This implies that each child differs (in his/her own tempo) and will learn to walk, talk, and acquire insight into his/her 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/her potential for a faster tempo is restrained.

That each person lives and does things at his/her own tempo and with a recognizable rhythm is a reality which no one can deny. Everyone discovers early in his/her life that the tempo with which another does things is too fast and that, therefore, he/she falls

behind or, conversely, that it is too slow for him/her and, thus, frustrating. By actualizing this principle, the child is helped to compare his/her **own activities** with those of his/her competitors, but he/she also acquires greater dexterity and, at the same time, appropriates for him/herself a unique life and learning tempo. Practicing to and from certain insights, practicing to better attending, concentrating and accuracy are aspects which can contribute to an improvement of the child's learning tempo. All 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 actualized by them. Therefore, it is meaningful to describe more closely 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, is actualized largely in the pathic-affective (i.e., emotional) attunement of a pupil. Therefore, as a mode of learning, when used by the teacher in subtle and deliberate ways, it can decisively influence 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** which 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 just the cognitive. With the help of teaching aids, a child is confronted with something strange, foreign, worth knowing, etc. which he/she no longer can accept as obvious. His/her sensing awakens in him/her doubtful and contradictory ideas. He/she lived experiences the matter as problematic.

Here, the teaching aid chosen must 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.

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 unexpected and

different form, color, order, movement, sound, description or perspective will provoke the child and capture his/her wondering.

The teaching aid is chosen in each phase of the lesson because of the support it offers the modes of learning, such as when it cuts to the anticipated result in that it manifests inherent, part-aspects, as essentials of the matter. However, the choice of a 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 an initial 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 which is made between teaching and learning aids. The concept "aids" also is not acceptable because it is too broad and too inclusive, 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 which 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 must be a search for **teaching aids** which supplement and make the presentation more effective. As an example, a teacher's use of a chalkboard in his/her exposition of new learning content is mentioned. Although the child also must and will learn, still this must 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, specifically, it 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 only indicate 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 liveliness, motility, and skillfulness of the child with respect to aspects of the surroundings reality. By unlocking reality for the child and by providing direction for his/her learning activities, the adult does not leave him/her to his/her own devices. During this activity of guiding, the adult intervenes intensely with the child and tries to direct his/her teaching such that it results in the child achieving better and becoming more skilled. The teacher must try to plan his/her presentation so that it is not vague and diffuse but is specific and makes demands which the child must meet. It must 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, further, self-activity means that there always are limits which must be exceeded and possibilities (problems) which must be interpreted. For this, the child needs help, which can mean the use of teaching aids.

However, the meaning of activity lies in the fact that a child unquestionably is someone who wants to and can become someone him/herself, and the guidance for this must also be directed 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 must 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 which, as constitutive foundations, include the primarily pathic way of lived experiencing **of sensing** as well as the predominantly gnostic ways of lived experiencing **perceiving, imagining, fantasizing, thinking, actualizing intelligence and remembering.**"

Thus, in practice, actualizing the principle of activity becomes differentiated into the modes of learning which, for the purpose of this discussion (namely, to strive for a

practice which 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 which is fortuitously available, we show the relationship between modes of learning and possible teaching aids which 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 are differentiated as more cognitive in nature. Essentially, sensing, as a mode of learning, can be typified as wondering. The quantity and quality of wondering awakened in the child during sensing serve as criteria for effective learning in this phase of the lesson. The quality of the lived experience of wondering is directly related to sensing the matter as something unexpected, unfamiliar, different, etc. Therefore, to promote the effect of sensing there can be a choice to use a teaching aid, if feasible. The emphasis should fall on the effectiveness of the **teaching aid** to supplement the matter to be viewed or the situation within which the event must be actualized. Where this has to do with a temporal, global view, 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 must 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/she finds it difficult to proceed afterwards to a more distanced and cognitive perceiving in his/her 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 which excessively sweep them up.

Teaching aids which 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" which is "strange" to him/her. There must 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 him/herself 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 [lesson] problem more easily discernible and formula table.

In this phase of the lesson, the choice and use of teaching aids should serve to let the **problem** stand out more clearly, to distinguish among possibilities, and to indicate **points of fixation** which can serve as points of orientation for further **reduction**. Thus, a model with colors or one which 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, i.e., to provide a total view or global gestalt for effective perceiving, there must be a search for aids which promote a more **businesslike** and **objective** way of learning (perceiving). They must compel the pupil to take a distance from his/her 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/she should choose teaching aids which are effective in assisting the pupils to confront relevant problems. In this way, he/she 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 socializing.

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 several disconnected concepts and ideas which now must 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, which have become visible through perceiving, now must be cognitively broken through. The first help which can be offered here is teaching aids which assist in building up for oneself a better **relief** (i.e., contrast) by systematizing, schematizing, synthesizing, classifying, etc.

Here we distinguish between teaching aids which help promote reproductive thinking, and productive thinking. On the one hand, aids are 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. It is earlier representations which 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 must be a search for teaching aids which lay bare insights into the essentials of the matter, relationships and methods so that the learner acquires the security and confidence to enable him/her to think productively (creatively). Here, some 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 must 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, on this level, no direct help can or should be given, and each child should be given the opportunity, based on his/her foreknowledge and the teacher's earlier preparation, to wrestle independently with the problem to, thus, more strongly lived experience his/her "detachment" (from the adult). Therefore, in this phase, the teacher's help is indirect. On the one hand, he/she provides help beforehand, based on his/her 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, based on his/her anticipations, should be incorporated into his/her general planning (of the lesson).

Remembering and teaching aids

A person has an objectifying, synoptic view by which the perspectives of several 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 must now be practiced until it becomes a personally learned possession. Exercising insight means actualizing the newly acquired! There must be a search for teaching aids which 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. Especially it is the board scheme or diagram, together with the lesson, by which the disconnected points are built up into a synoptic profile, which 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 -- for controlling 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 particularly.

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 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 which 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 several 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/her own practice. In no sense is a claim of completeness made here.

Phase of the lesson:	Function of the aid(s):
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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