

CHAPTER FOUR

4. RELEVANCE OF THE ELEMENTAL AND THE FUNDAMENTAL

From what is touched on in the previous chapter about the elemental and the fundamental, it is now possible to indicate what relevance this theory has for the part-perspectives of pedagogics, such as, e.g.:

1. pedagogics in general;
2. didactic pedagogics;
3. psychopedagogics;
4. historical pedagogics;
5. sociopedagogics;
6. subject-didactics.

This requires a comprehensive study to illuminate the area of each of the part-perspectives by using the concept elemental-fundamental as a category, and to phenomenologically uncover, elucidate, and express what is disclosed from this perspective. What follows, however, is only a cursory indication of the possibilities which the theory of the elemental and the fundamental holds for the part-perspectives of pedagogics.

4.1 Relevance of the elemental and the fundamental for pedagogics in general [i.e., fundamental pedagogics]

Pedagogics is the science of educating. Pedagogics says a child needs an adult to guide him/her on his/her way to becoming an adult. The adult's being demands giving help to the not-yet adult. This help consists in presenting contents in a certain form. Help without contents and form is not even thinkable. When one views the form and contents of help phenomenologically, the elemental and the fundamental speak to him/her.

Where do these contents come from? The answer given by pedagogics is that they are nothing more than lifeworld contents. As such, are contents diffuse and inaccessible to a person? Kant

says no, the lifeworld is the terrain of the phenomenon (and not of the noumenon) (15, p 206). However, reality is expansive, and for a person (respectively, a child), it can appear diffuse if it is not categorically unlocked for him/her. But once it is unlocked, a person has a cognitive grasp and affective lived experience of this reality. Then, says Kant, a person (he says reason) views all cognitive insights as part of a possible system.

The aim of educating a child is to bring him/her to adulthood and a meaningful existence. However, a person does not first experience a meaningful existence, but rather, it originates in his/her becoming adult.

Landman shows that the educative situation has three structures, i.e., a relationship, a sequence, and an aim structure [an activity structure was disclosed later]. These structures are clearly seen in the theory of the elemental and the fundamental.

4.1.1 The relationship structure

The adult in the pedagogic situation cannot unlock the elemental as accessible contents if this relationship structure is not actualized. He/she must understand a child to know on what level he/she must meaningfully unlock the elemental. The relationship of understanding co-determines if a child is going to open him/herself to the unlocked categorical aspect of life, as the elemental. This openness of a child to the contents is a precondition for his/her fundamental forming. A child trusts the adult, and trusts that he/she finds the elemental in the learning contents, which allows him/her to experience it as a fundamental and progresses [to adulthood].

4.1.2 The sequence structure

Not so much in association and encounter, as in engagement, do the elemental and the fundamental have immanent relevance. If it is true that only contents which are "palatable" for a child can contribute to his/her forming and taking a perspective, then engagement cannot be actualized unless the elemental, as content, is brought within the horizon of his/her understanding. Engagement progresses in a qualitatively meaningful way, to the degree that the elemental is successfully unlocked. Successful means unlocking,

which not only clarifies the contents but addresses, appeals to, makes demands on a child in his/her life circumstances.

Periodic breaking away refers to a child's own investigation of the structures of life reality and personal view of the lifeworld with reference to elemental insights, which lead to fundamental reflections on life.

Also, in the sequence structure of periodic breaking away, contents are made accessible and presented to a child in such a way that they direct an appeal to him/her. This is not merely passing contents on or forcing them on a child. His/her activity should be a personal actualization of the contents (elementals) which have been exposed, such that they become fundamentals.

A child should be given the opportunity to periodically functionalize the contents and the unlocked impact of the educative activities. The fundamental must be made functional, otherwise educating cannot prosper; in this sense, essentially, educating is also self-educating.

4.1.3 The aim structure

Actualizing the aim structure cuts through to actualizing the fundamental. A child who, in the unlocking situation, does not experience the fundamentals (basic experiences), will not be able to experience the aim structure. On the other hand, viewed positively, a child who has acquired essential, basic experiences through meaningful and fruitful unlocking, acquires the fundamental as intellectual equipment, which allows him/her to actualize the aim structure.

The pedagogic aim structure points to the eventuality of educating when life contents, which have spoken to the child from many situations, have become functionalized. By acquiring life contents and their fundamental effects, a child can develop a personal lifestyle.

4.2 Relevance of the elemental and the fundamental for didactic theory and practice

Flitner asserts that didactics is the interaction between teaching and learning--but also more than this. Dieter Ulrich speaks of teaching

as a type of influencing relationship (34, p 132). Again, Van der Stoep refers to *didaskhein* as "to teach".

All these pronouncements hold true when the theory of the elemental and the fundamental arise. As mentioned, the concepts elemental and fundamental are essentially concerned with teaching contents. The elemental refers to contents which have been abstracted from lifeworld contents by the adult and reduced to their essentials. Thus, the elemental is the adult's portrayal of the essentials of life contents. Acquiring the elemental from life contents, however, is not an aim itself. The immediate aim is to pass on these contents to children in a teaching activity by means of didactic unlocking. A precondition for presenting intensified life contents in a didactic encounter is that the relationship between the unlocker, and the child satisfies the criteria for establishing such a relationship. If the established relationship is right, a child feels disposed to be party to the unlocked contents. By his/her intentional participation in the unlocking activity, a child acquires contents and, thus, he/she learns. Also, the teacher's final aim is not only that a child learn. He/she also must be given the opportunity to make the acquired insights functional. Thus, there are two clearly distinguishable aspects to a child's participation in the teaching activity. The first aspect is that he/she gains certain knowledge, insights, and understandings—thus, he/she learns. He/she leaves the situation other than when he/she entered it. He/she leaves this situation with intellectual equipment not initially at his/her disposal. In the second place, he/she has seen which methods can be used to cultivate and explore contents of reality and acquires the methods he/she has co-experienced as fundamental methods for him/her to use when later he/she is involved with lifeworld contents.

The instructional dividends are considered in the discussion of the fundamental in the previous chapter. The fundamental is viewed as a collective term for all which a child has acquired from didactic unlocking. This acquisition always is fundamental equipment for a child. His/her forming is not actualized by this: the acquired fundamental should speak to him/her in his/her future involvement with the world and reality, and in further situations. A child also enters each future situation as a child who has mastered or partly mastered contents. The teacher must realize that forming essentially is also self-forming, and a child must find an opportunity to make the acquired fundamental functional as contents for living.

The formative structure spirals from acquired contents which have been functionalized. This is followed by unlocking and acquiring additional contents and functionalizing the initial and additional contents. The spiral is built up until a child can functionalize as much contents as possible, as a formed person—thus, someone who not only understands or experiences the fundamentals in their comprehensive effect, but who also puts them into action in his/her own life. At this point, the teacher becomes superfluous, and his/her guiding-unlocking function can be dispensed with.

For the becoming self, the whole of life's way leads from acquiring contents to functionalizing what he/she learns, understands, or recognizes. The task of forming, as acquiring elementals as basic attitudes and functionalizing these fundamentals as life-styling contents, remains with a person for the duration of his/her life.

4.3 Relevance of the elemental and the fundamental for psychopedagogics

The elemental and the fundamental are key concepts for didactic theory and practice. This amounts to making these contents accessible to a child so he/she acquires them. This is done by a guided unlocking of the contents and by guiding a child when he/she uses these acquired contents. It is obvious that a child who has acquired contents and insights has become different, his/her command of his/her lifeworld has changed, and he/she has established different relationships with reality.

The fact **that a child learns** is an area of research and implementation for didactic pedagogics. But it is psychopedagogics which provides an answer to the question of **how he/she learns**. In this connection, the modes of learning have been presented and their essentials disclosed and clarified by psychopedagogics. The only question is whether the view that only contents, as elementals, are formative (i.e., contents in terms of which a child's becoming is actualized) can be addressed by psychopedagogics. It can shed light on the pupils' acquisition of contents by, e.g., indicating the pathic/affective, gnostic/cognitive and meaning-giving aspects of unlocking an elemental, which has a clearly fundamental thrust.

The essentials of a child's acquisition of elementals can be highlighted and described by psychopedagogics. It can be of great

help to the didactician, who launches the unlocking, to know how this acquisition occurs and what its essential aspects are.

Ultimately, becoming is self-becoming, consequently it is of primary importance to the didactician that psychopedagogics also uncovers and describes the essentials of a child's initial and later functionalizing of the acquired contents so that, in this respect, the didactician can exhaust the insights established by a psychopedagogic illumination of a child's acquisition and application of the contents.

Weniger asserts that a child first becomes a personality, first becomes someone him/herself, through putting the fundamental (which is a dividend of the unlocking activity) into action. Those who do not put the fundamentals into action in their life will not have the same increase in forming or becoming as children who do. Also, pronouncements by psychopedagogics are important because there are differences in the ways becoming occurs, and which originate from a child's unwillingness to functionalize the acquired contents, rather than inadequate unlocking. It is important for the didactician to know why pupils are willing and ready to functionalize the acquired contents.

The didactician looks to the findings of psychopedagogics when elementals must be determined from life contents (syllabus). Psychopedagogics indicates the ways children give meaning at different periods of their life. Mindful of Scheurl's statement that the elemental always exemplifies something to someone, it is obvious that elementals and their relationships must consider the pupils' level of becoming and previous experiences or fundamental equipment already at their disposal.

The present study emphasizes that the elemental and the fundamental are direct counterpoints against the attack of positivism on educating. The practitioner must be able to change this science to something of anthropological-existential significance for a becoming child. This approach involves both a scientific propaedeutics, and life hermeneutics. The science to which the didactic is joined and within which a child gains insight, also clarifies his/her own life, and orients him/her to the whole of human life. It is necessary that psychopedagogics give an indication of how the teacher must understand a child as potentiality to accept and to command fundamentals.

In this connection, psychopedagogics, in its view of a child, can take fruitful note of the insights of Leonhard Lahrman in his work "Phantasie und elementares Lernen". Lahrman's view brings psychopedagogics and historical pedagogics together, to the degree that he describes fantasy as a moment of concretizing time and space. It is in fantasy, as primordial fact, which a person, as eccentricity, can always recall lived experiences and experiences.

Lahrman also connects fantasy, as an elementary "social organ" in the didactic event, and directs an appeal to psycho-, historical- and didactic-pedagogics to reflect together and converse about the events of forming and becoming.

Thus play (fantasy), as a ground-form of teaching, is entwined with fantasy "while each child creates his own world" ["indem es (das Kind) sich eine eigene Welt erschafft"]. A person is equally a fantasizing and an understanding being. It is in fantasy that a bridge is built between the surrounding world and a child's own world. Finally, it is only a person, as a fantasizing being, who can take flight and exceed the elemental unlocking situation and experience emancipation, "premonition", and transcendence. "Only in exceeding spatial and temporal boundaries, can a person become a human being".

Psychopedagogics must reflect on the degree to which the formative aim of teaching is attained by carefully observing limited to unlocking as an aid, and not as a guiding aid, on the fundamental path to a lived life. Who other than a psychopedagogue can investigate Comenius' (19, 183) statement that, "Eye and spirit are thirsty for subject matter."* Psychopedagogics can seek information about the spiritual, formative function of "the thirst of eye and spirit for contents" to meaningfully guide the didactic unlocking in its being attuned to relationships which influence a child.

Finally, psychopedagogics illuminates, inquires about, discloses, and describes, with psychopedagogical categories and criteria, the entire didactic practice of multiple unlocking, elemental input, a pushing through from the elemental to the fundamental, and the fundamental actualization of becoming and, thus, makes a relevant

* Comenius' quotation is changed slightly.

contribution to establishing a practice which expedites a child changing his/her life meanings.

4.4 Relevance of the elemental and fundamental for historical and comparative pedagogics

A person is a historical being, and the human species is a historically appearing species (Merleau-Ponty). What has happened in the past is important to a child today, only to the extent that it is an actuality for him/her in his/her present situation. The history of the past must be discussed as concrete and concretized time in the present teaching situation and then, not so much for the present, but for the sake of unlocking the elemental, which is important for the child as fundamental content by which he/she can interpret and command the future.

The theory of the elemental and the fundamental can be turned by comparative pedagogics into a criterion by which contemporary and former unlocking activities are launched or actualized. This should indicate if there is a meaningful reduction to the elemental or a clear pushing through from elemental input to a gain in fundamental contents, and the degree to which guiding the child in functionalizing the fundamental occurs.

By using the elemental and the fundamental as a criterion regarding, e.g., Greek-Hellenistic didactic practice, light possibly can be thrown on the exasperating didactic secrets hidden in the overwhelming functioning of *fundamentalia* in Ancient Greece. What elementals were unlocked, and how, to push through to such epoch-making fundamentals over such wide-ranging terrains? This is one of the challenging possibilities which the application of the theory of the elemental and the fundamental, as criteria, hold for comparative pedagogics.

4.5 The relevance of the elemental and the fundamental for sociopedagogics

Learning is actualized in concrete situations in which fantasy plays a constitutive role in forming the experience of space and time. A child's established relationship in this situation cannot be thought of as being without fantasy. However, there also is an elemental, fantasy-rich social moment as a sense-giving constituent of such a learning situation (19, 11). A child always patterns his/her self-

dialogue after the model of adults who, in a didactic situation, enter his/her world of objects and, thus, his/her lifeworld.

The adult's role is with the elemental contents presented to a child-in-situation. It is indicated that the adult's unlocking must be accessible to a child for him/her, in any sense, to be able to intervene in his/her life.

Where there is a deficiency in establishing pedagogic relationships, a child cannot join in the unlocking, and the formative social-anthropological moment is wanting, and this hinders him/her in the fundamental result of arriving at his/her own identification.

In the extreme case where a child does not experience an identifiable encounter, he/she has a gap in his/her attitude toward adults, which can have the consequence that he/she might even begin to act a-socially.

The theory of the elemental and fundamental asks that sociopedagogics investigate, expose, and express, in socio-didactic theory, the well-known statement by Kwant that a person is social in everything, also and, especially, in a pedagogic-didactic situation, such that it contributes to the meaningful establishment of practice.

If the fantasy-rich social moments in the situation progress successfully, a child lived experiences what is unlocked as a social elemental; on the one hand, a meaningful self-dialogue can be carried on as a fundamental result of such a lived experience but, on the other hand, he/she finds meaning in the larger social framework with which his/her life is intrinsically woven.

Preaching social obligations, demands, etc. to a child is giving fundamental input which does not result in acquiring a fundamental. This means, if a child does not lived experience the social moments in a concrete situation as didactically meaningful, it is useless to expect that, outside the situation, he/she establishes healthy social relationships.

Didactically, an adult is a means by which a child masters contents which allows him/her to flourish to a meaningful existence. For a child, all formative contents also are "adult-colored". There are moments of adulthood in all contents which contribute to his/her elevating his/her level of dialogue (with the contents, with reality).

In the mutual awareness between teacher and learner (6, 22), something of the later entire human reality and life reality is already included, i.e., an awareness of human solidarity and a mutual presence to each other (a social moment).

Finally, sociopedagogics can speak to the great social-didactic task suggested by Derbolav that, in his/her view, a child arrives at him/herself through others (16, 300).

4.6 Relevance of the elemental and the fundamental for subject-didactics

Introduction

A responsible didactic theory necessarily results in a didactic practice and, particularly, in a lesson structure. The elemental and the fundamental must have relevance in the lesson structure, otherwise they cannot contribute to didactic theory and practice. There must be an awareness that the lesson structure also is modified, to the extent that didactic research throws new light on the phenomenon of educating and discovers essentials which have not previously been expressed.

4.6.1 Source of contents

Without contents, there can be no teaching or educating. Where do the contents which arise in subject-didactics come from? Formative contents can be nothing more than lifeworld contents. To transform these lifeworld contents into syllabi in the school situation, subject specialists, appointed by the state, take slices from, delimit, or even reduce the lifeworld in its manifestations, and write this up as syllabi for "subjects" or areas of knowledge. Knowledge in the lifeworld is not known as biology, physics, chemistry, history etc. This division into "subjects" has its cultural-historical custom, but it is a custom which borders on the arbitrary (Weniger; 57, p 31).

This "subject" division is done for school organization, division of labor among teachers, and to make subject choices enjoyable and even possible for pupils. In the extreme case, this is even a way of judging whether students have received satisfactory instruction to enroll in a course of study at a college, but especially at a university.

The formative contents now are selected from these syllabi in terms of which a child can be taught and educated.

Seyfert (16, p 256) espouses an entirely different arrangement, for example, than that followed in the Transvaal. For the fifth school year, he has only three main themes: house building, heating, and lighting (electricity excluded). All teaching revolves around these three themes. One can imagine that many areas of knowledge are unlocked with such themes--also language and history, social history, and natural sciences can be learned from these main themes.

Later, it is shown that the theory of the elemental and the fundamental cannot remain limited to the immediate subject, but an unlocking which has a highly fundamental thrust, leads to a perspective by a child, which extends far into the horizon of the delimited immediate subject.

Kreschensteiner indicates that each subject area has a formative value which is unique to it and which does not necessarily figure in other subject areas (16, p 220). Therefore, it is very important that those who select contents for teaching keep these unique moments of life in mind and include them in the syllabi.

A pronouncement by Frick also deserves attention in this introduction. He asserts that the "formative process" is receptive, but it also is actualizing. Authentic forming is the fruit of formative work which, while it assimilates the formative material, knowledge is changed, and a free reign over the material is brought about (16, p 187). For subject-didactics, this means that the contents are made one's own (reception), but also that there is a functionalization (actualization) of these contents which one has made his/her own. A child must not only **know** (have insight, understanding) but also **be able** (can do him/herself, use the acquired contents). Teaching must lead a child to "a free reign over the material". In other words, he/she must be guided to emancipation and to freely use the contents, also in his/her later life. Schleiermacher's classic statement is related to this, i.e., "We learn not for school, only for life".

4.6.2 Existential concentration (57, p 95)

Teaching is not of coincidental importance but is a necessary task of life. For Weniger, this does not involve accumulating knowledge, but concentrating and focusing on the didactic activity to meaningfully live one's life (57, p 97). Existential concentration is actualized through didactic concentration, which is a precondition for it. There cannot be a life task to be fulfilled without control over the contents embodied in that task. The field of concentration for didactic work is the elemental. Didactic work takes place in terms of the essentials of the contents.

4.6.3 The elemental and the fundamental in the lesson structure

To clearly focus on making room for the elemental and the fundamental in the lesson structure, an example is presented which ought to clarify this whole matter.

Example of a lesson

Localizing information:

Grade: 8th

Subject: Geography

Time: 35 minutes

Grouping: Boys and girls of the same age (13 to 14 years), intellectual potential follows distribution in a normal class, the course of experiences is relatively homogeneous (This often does not figure in the lesson structure, but according to Lahrmann, it ought to be considered. The didactic activity does not start from zero--there are always life experiences which precede the unlocking, and, in some cases, a child's experiences are even going to be ahead of the unlocking. This is a problem which the unlocker must consider, because a lesson can fail when it is "unnecessary" to give, i.e., when the experiences of many of the pupils have already surpassed what is to be presented. But even a few children who have mastered all the insights raised in the lesson can lead to things going wrong. The necessity of also considering the course of experiences in designing a lesson is advanced here).

The teaching aim:

The lesson aim: Convection of rain

The learning aim: Insight with respect to rain, as a natural phenomenon, more particularly, how air currents cause rain.

Stating the problem:

Formulation of the problem: Through actualizing foreknowledge and stating the problem, the children are led to formulate a problem for themselves, i.e., "What is rain?"

Problem solution: By asking questions around the central problem, and following the answers given by the pupils with counter-questions and additional questions to answer, they are led to their own solution to the problem, "What is rain?"

From the learning aim, the teacher considers the structure of the reality of the convection of rain in its essential contents, and decides that there are certain basic aspects which can serve as input for his/her unlocking. However, the central question for a child is "What is rain?" The answer to the question must lead to an understanding of the water cycle in nature, and the convection of rain.

The teacher is aware that a child already knows what rain is from experience and by **actualizing** his/her **foreknowledge**, links up with it. The lesson does not begin with unlocking the elemental; it must lead to that. Thus, actualizing foreknowledge should center on questions and answers woven around the following themes: "Who of you has seen how the weather springs up?" "How does a person know that it is going to rain?" "What other phenomena are paired with weather which springs up?" "Tell how it begins to rain".

Then, **exposing new contents** follows, and there is a push to unlock the elemental. A child is an active participant in the lesson and responds to questions such as the following: "What is rain?" An answer could possibly be "Water". "Is water which comes out of a faucet rain?" "No. Rain is water which falls from the sky" "How does this differ from water which comes from a faucet?" Possible answer: "Water comes out of a faucet in a stream, but rain falls from the sky in the form of drops."

"Why is water in the sky?" Here, an explication is possibly necessary. In each case, a child must arrive at the insight that warm air rises and carries water vapor away. "Is there water in the air around us? Come, let's look". The teacher shows the children an empty glass, and puts a piece of ice in it. The lesson moves forward. Later, the glass, which is now wet on the outside, is returned to. Questions are directed to it so the pupils can conclude that these

drops of water are nothing else than moisture (water vapor) which has condensed on the cold glass.

Thus, there is water vapor in the air, which essentially is the same as rain, but it is not rain. It has only formed drops on the glass as it has cooled. In similar ways, the concepts convection currents, condensation, cloud forming, and rain are dealt with (i.e., unlocked) so a child obtains a clear understanding of the natural phenomenon of the convection of rain.

Various other aspects related to or which stem from the convection of rain are, e.g., convection of rain is a seasonal phenomenon, and is dependent on evaporation, winds, temperature. Rain can be forecast if a person can interpret all the factors, e.g., air temperature, humidity, and the influence of air pressure. The physical and geographic characteristics of a landscape, as well as its location, all influence rainfall. Again, rainfall influences the agriculture, climate, and the occupations of the area. Thus, there are a multiplicity of connections which all form part of a large jigsaw puzzle.

The teacher must avoid becoming entangled in the intertwined relationships. The learning aim must be clearly formulated, and the unlocking must lead to it. A child must have the opportunity to **actualize the new contents**. This is an important part of the lesson because this means that the acquired insights and contents (fundamentals) are functionalized (used). Actualizing the new contents amounts to a guided functionalization of the acquired contents or fundamentals. The principle of systematization must be implemented because one wants to see systematization in didactic practice in the form of reviewing, surveying, and justifying. Systematization and ordering are an important intermediate phase at this stage of a lesson, and can be brought about by well chosen questions to which the pupils give answers, e.g., "Why is there talk of convection of rain and not merely of rain?" In their answers, the pupils must show a knowledge and understanding of the connection between convection currents and the convection of rain. "Why can it be expected that rainfall will be higher on the coast than in some parts of the interior?" Large areas of water (e.g., lakes) have the possibility of greater evaporation which, in turn, can promote condensation and rainfall. More examples can be given, but the essence is that a child has acquired contents and insights by which he/she can reflect on and interpret the world.

It is obvious that the unlocking also allows a child's self-understanding to increase, so that the following possible perspectives are indicated: Possibly a child had no idea that water vapor is present everywhere in the air; the unlocking showed this by means of a practical experiment. Now, he/she understands that he/she continually inhales water vapor. Further, seasonal rain is now a more substantial concept for him/her. The water cycle in nature allows him/her to better understand his/her own dependence on natural phenomena. Also, in this case, several other examples can be mentioned which indicate that he/she now has a different grasp of reality than before the unlocking--and a changed grasp of reality means establishing changed perspectives and relationships, and a shifting of his/her life-horizon.

However, the fundamental is pushed further than only this first functionalization of it. The contents and insights acquired are involved in subsequent unlocking. As he/she has mastered the elementals of the convection of rain, these contents and insights have a guiding function when he/she experiences further unlocking in relation to this theme, e.g., cyclone rains, dew, hail, and snow, agriculture. The fundamental is foreknowledge (past) and guiding (present) contents for future unlocking.

Even with this, the whole effect of the acquired contents is not exhausted. The fundamental also is more than its value, as acquired contents which function in future unlocking. The fundamental extends to many horizons and is part of the learner's giving meaning and sense to the world and reality. The entire course of the fundamental cannot be put into words, and cannot receive much attention in a 35-minute period in a school teaching situation. It is with respect to overloaded syllabi which the teacher is impelled to get past and keep busy with presenting another, or following theme of further insights and perspective, which are embedded in the fundamental. A child has viewed, investigated the contents, and his/her insights have been ordered and systematized, and he/she already has functionalized certain fundamental insights which have enlarged his/her horizon of understanding and living. But there is still more to be said about the fundamental insights. The following can contribute to considering a child's life contents and, in formative teaching, there ought to be time devoted to discussing these life contents:

- In nature, water is not a form so much as it moves and assumes different forms;
- Storage dams on rivers are essential and necessary because they not only supply necessary water, but they also can influence the climate in the area;
- Water and rain have great economic consequences.

As in the previous case, a few additional extrapolations of the concepts which have become familiar in the initial unlocking of the elemental are mentioned. They also influence a child's anticipations and expectations, as indicated in the following examples:

- One day when I am grown, I want to be an engineer who designs and constructs dams, so that one has some control over the water cycle;
- One day when I buy a place, I want it to be in an area which has regular rainfall;
- My dad has a place in this rainfall area, and he ought to be a successful farmer, since he does not have bad runoff.

Finally, the contents influence a child's transcending and struggling, when he/she allows them to arise in fundamental questions, such as: Why does a person pray for rain? Why is a day of giving thanks observed after a good season? How did God create the ocean and separate it from the land?

When the teaching, initial functionalizing of *fundamentalia*, their evaluation and measurement are long forgotten, the fundamental contents still function as living and meaning-giving contents in the lifestyle of the onetime child, who later lives his/her life as an adult. People look to him/her, listen to him/her, see what he/she achieves, and talk to him/her as an educated, (in)formed person who leads a meaningful life--and it is not possible that he/she knows everything, since everything does not come forth through teaching and, indeed, the elemental makes it possible for him/her to experience the contents for the first time in a primordial way.

In summary, a lesson structure cast along the lines of the elemental and the fundamental implies nothing more than what appears nowadays. The pattern is as follows: Find an elemental or elementals, actualize foreknowledge, unlock the elementals, actualize them (the new contents), systematically and responsibly functionalize the fundamental, as far as previously decided or as

seems necessary, encourage the learner to him/herself functionalize the fundamental contents.

The presentation of learning contents, as in the preceding example, clarifies Derbolav's view that unlocking the elemental is a path to the fundamental, that such an unlocking simultaneously is a scientific propaedeutic, and a life hermeneutic. The clarification of scientific contents allows them to eventually become life contents for a child (16, p 317).

4.6.4 Lesson preparation

The preparation of a lesson begins with teacher training. One cannot expect someone who does not understand the elemental and the fundamental to be able to launch a successful lesson. Thus, there is mention of being prepared because of teacher training in applying these fundamental ideas.

Preparation in practice

The teacher who is acquainted with the concepts elemental and fundamental, and their relevance and importance for theory and practice know how to find a harmony between form and content. He/she searches for this harmony in the elemental which he/she exposes in his/her teaching. "Finding the elemental" should be done with great care because the whole formative event succeeds or fails with unlocking the elemental. The teacher should be clear about the aims he/she strives for because they give meaning to the practice he/she creates. The predominant aim should be for children to "change" by making an elemental accessible to them. To launch a successful lesson, the teacher should consider the following in designing it:

- (a) The learning content which is going to be exposed;
- (b) his localizing information as well as his knowledge of the pupils will give him an indication of the appropriate range of connected essential elements which ought to figure in the unlocking;
- (c) he should research the learning contents to stress those elementals contained in aspects of reality and life;
- (d) the long list of the forms of appearance of the elementals should be reviewed so the teacher can choose the proper ones

- to introduce the learning contents and make them accessible to a child;
- (e) the elemental is not the beginning point of unlocking and the teacher should reflect on what foreknowledge should be actualized;
 - (f) the teacher should consider how he can establish a relationship with the children so they will be disposed to participate;
 - (g) the teacher should anticipate children's questions which lead to stating a problem and which, in its unraveling and unfolding, expedite a fruitful moment;
 - (h) in exposing the new contents, there are life moments which should not be left out, and the teacher must ascertain what they are;
 - (i) the teacher should reflect on his guiding activities and his role in the course of the lesson so that a child will be allowed the greatest freedom of personal activity;
 - (j) the passage from elemental to fundamental also requires reflection beforehand;
 - (k) the teacher should anticipate the course of functionalizing as the first basic activity of adequately unlocking the elemental;
 - (l) controlling and evaluating questions which follow should consider diverse life matters and self-understandings. and not only mere facts;
 - (m) the possibility that there can be a fundamental effect which leads to emancipation, transcendence, fantasy and creativity should be anticipated in preparing the lesson.

4.6.5 Evaluating and measuring

It ought to be clear from the above discussion that evaluating and measuring are part of a child's functionalizing the fundamentals. Thus, testing contents amounts to asking a child to “give back” his/her acquired contents. Didactically, such testing should not merely be focused on the information which has been memorized, retained, and reproduced by a child, but also on establishing the degree to which they can use fundamental contents. Didactically meaningful testing/evaluating should be directed to insights and relationships, applications, and deductions--all within a child's horizon of understanding.

