

CHAPTER VI ACTUALIZING AND FUNCTIONALIZING

C. J. Goosen

Gold City (Johannesburg) Teachers College

1. ACTUALIZING

1.1 Conceptual analysis

"Actualizing" essentially refers to the event by which "remainders" (representations, concepts, relationships, methods, etc.) from earlier learning contents and modes of learning are recalled and are again made **explicit** (Van der Stoep, 1973, p 109). This prepares the foundation for fruitfully linking up with and giving meaning to new learning content.

To be able to actualize, certain principles must be continually considered, i.e., the principles of activity, individualization, and tempo differentiation.

1.2 A concise elucidation of the general principles of actualization

Principle of activity: A child yearns to be active. Initially he/she must be guided to choose, decide, and act correctly so that eventually he/she will act according to expectations. (Exemplify [do for] - do something together - do something by oneself).

Principle of individualization: Each person shows a unique individuality, particularity, singularity, uniqueness, freshness, and originality which must be allowed for, i.e., what-one-is and what-one-can-be, i.e., a learner's potentialities. There must be a serious attempt at actualizing ways of inter- and intra-communication (Van der Stoep, 1973, p 114). (Also compare differentiated teaching).

Principle of socializing: As a principle of actualization, it can only acquire real meaning if its point of departure is the primordial being-with-others (Mitsein). In a didactic situation, a child, as well as an adult, must be prepared to establish contact or enter a dialogue (encounter). An adult is under the imperative of his/her

educative task, while a child increasingly wants to be an independent someone him/herself. From "I" and "you", an "us" is born, which vigorously fuses us together for activities, and which enriches both of us.

Principle of tempo differentiation: The principle of actualization effectively brings into motion the planned lesson structure. The movement of the lesson structure is manifested during the lesson because, necessarily, there must be a beginning, a progression, and an end. In a lesson situation, a teacher and child are co-responsible for a good progression or lesson tempo. Unrealistic demands lead to frustration. A slow tempo is required for exposing a new theme, and a quicker tempo for the lesson phase of functionalizing, i.e., there is a variation in tempo. An inflexible timetable, and unassimilated learning content might be detrimental to this principle of actualization.

A further distinction is made between a learning child's self-discovery, where he/she enters reality in unique, naive, intuitive, and original ways, i.e., **self-actualization**, and an adult's role of guiding and unlocking reality, i.e., **guided actualization**. It is understandable that, at first, guidance is prominent, but that a child, who him/herself wants to become adult, gradually will be given an opportunity to independently enter reality (Van der Stoep et al., 1973, p 117 et seq.).

1.3 Some aspects of the lesson when the principles of actualization should be implemented

1.3.1 Actualizing foreknowledge

Gauging the content of a previous lesson or lessons is important because these insights often serve as the foundation for learning new content. This happens because a teacher controls [gauges] proficiencies and skills from the content, e.g., concepts, views, activities, etc., to determine a pupil's level of entry. The way control [gauging] is exercised is important because, if it over-emphasizes ready factual knowledge, the willing readiness for contact, and a sense of community can be undermined.

According to Gresse et al. (1977, p 13), foreknowledge can be actualized by an assignment, request, demand, challenge to

participate, and by questions (on different levels) regarding previously acquired knowledge.

Landman (1977, p 169) distinguishes the following essentials of actualizing foreknowledge:

A teacher makes the pupils aware of their foreknowledge, e.g., by referring to work previously dealt with, or to experiences he/she knows some of the pupils already have had.

A teacher evokes what the foreknowledge means to the pupils themselves. A teacher lets this becoming aware and recalling occur in such a way that the pupils agree that their foreknowledge is meaningful by, among other ways, valuing their efforts and showing his/her approval. The pupils lived experience a teacher's approval, and this already stimulates their foreknowledge (Landman, 1977, p 87).

Stimulating foreknowledge leads necessarily to a meaningful progression of a lesson, while nonenlivened foreknowledge allows the lesson to stagnate before it has even begun. Enlivened foreknowledge, to which a teacher continually returns, is commonly stimulated anew by periodic lived experiences of agreement. Van der Merwe (1977, p 87) distinguishes the following ways of actualizing (controlling):

First, a **relationship of language dialogue**; e.g., where a teacher narrates, where the pupils narrate to each other, where a teacher questions and the pupils answer orally/in writing, and where one pupil questions and other pupils answer; second, there is a **searching relationship** within which the pupils compete with each other, e.g., in a quiz or in playing a part in a play, all of which a teacher tactfully gauges; and, third, there is a **demonstration relationship**. The insights viewed as relevant for the new content can again be made available to the pupils through one or another example, e.g., reconstructing a model, or an account of an event by the pupils themselves. In actualizing foreknowledge, it might become apparent to a teacher that he/she must replan or entirely revise his/her lesson if the pupils are to be able to master the new learning content.

If a child lived experiences meaning while actualizing his/her foreknowledge, he/she will open him/herself to the new learning content and be prepared to venture with the teacher during its disclosure. The pupils' intention to learn now is awakened and directed (attuned), as well as motivated to deal with the new theme.

1.3.2 Actualizing during and after presenting the new content

The pupils must continually be actively involved in the lesson. Thus, they must not be passive listeners, but active participants. Consequently, there must be a continual gauging (monitoring) of whether they participate, and if they show insight into the essentials of the learning content. A very useful method is to ask alternating questions during and after exposing the learning content. Thus, the pupils can deal with and use the new insights themselves, i.e., the opportunity to practice the essentials until insight breaks through (practice to insight).

The pupils must be able to schematize the insights, i.e., place them in a comprehensive scheme with their foreknowledge. The scheme must include the essentials of the learning content, as well as the relationships among the essentials. Naming new insights, i.e., expressing them in language is very important, and requires productive thinking (Van der Stoep, 1973, p 176). Landman (1977, p 78) indicates that, here, the didactic modalities come clearly into the foreground as follows:

1.3.2.1 The principle of activity: An appeal is directed to the pupils to do something; to respond, to decide, to express, etc.

1.3.2.2 The principle of individualization: Refers to a teacher opening him/herself to each child by respecting his/her being different, his/her uniqueness, by encouraging him/her to achieve, to acquire a personal style of learning, and implementing his/her modes of learning.

1.3.2.3 The principle of socialization: Refers to establishing relationships, intervening with a child's achievement, lived experiencing a stable bonding with the class, and initiating doing things together (group work).

1.3.2.4 The principle of tempo differentiation: To participate in actualizing the essentials of the lesson structure, and the lesson content with an optimal personal work tempo.

2. THE CLOSING PHASE: FUNCTIONALIZING THE LEARNING CONTENTS

Insights which the pupils have achieved while the new content was presented, now, in this phase must be thoroughly firmed up and made functional (Van der Stoep, et al., 1973, p 177).

The primary aspects of how this is done are:

2.1 Practicing the new insights (content): Familiarized insights are practiced and studied in meaningful ways. This means the pupils must be able to use these insights with understanding in similar problem areas. In contrast with practicing **to** insight during the exposition phase, now, there is a practicing **of** insights or of new content. The pupils are guided until they can independently deal with and solve similar problems.

2.2 Integrating the new knowledge with existing knowledge: Foreknowledge and the newly acquired knowledge must be synthesized so they become a usable unity (Landman, 1977, p 78). Integrating the new with existing knowledge requires specific planning and reflection on a teacher's part. For example, religious instruction in fourth grade must consider the work dealt with in second grade, otherwise a fourth-grade lesson can merely be a repetition of the earlier lesson which, for the pupils, can lead to boredom and related disciplinary problems.

2.3 Applying the acquired knowledge:

"Functionalizing really implies applying" (Van der Stoep, et al., 1973, p 178). However, we must distinguish applying in the lesson situation, and in the lifeworld. Indeed, all (educative) teaching aims at proper adulthood, and this adulthood is exercised in society where a child is expected to use his/her acquired knowledge in practice, e.g., by being able to write an appropriate business letter, or say a prayer.

Thus, a teacher must create an opportunity for the pupils to be able to practice, e.g., writing a personal essay/letter, or carrying out an

assignment/task, so that one day he/she can act independently and responsibly as is expected of an adult.

Should the pupils fail in the practice of applying, this gives a teacher an indication of their lack of insightful mastery of the learning content, and of the lack of success of his/her presentation. For example, he/she might find that he/she must again return to practicing the new content, or go back even further in the course of the lesson. This means intervening and, again, a child is guided by the learning aim with the purpose of independently mastering the learning content (Gresse, et al., 1977, p 23).

Various possible ways of functionalizing are used by a teacher to make the pupils' insights functional:

- (1) Repeating insights in a pupil's own words;
- (2) Questioning which will lead to a clarification of terminology;
- (3) Completing projects to fill out and clarify insights;
- (4) Summarizing characteristics, constructions, functions, etc.;
- (5) Comparing two striking matters, e.g., Saul and David with special reference to their successes and failures;
- (6) Solving problems similar to those presented;
- (7) Completing outlines where captions are missing;
- (8) Writing sentences to illustrate language mastery;
- (9) Completing schematic representations;
- (10) Completing incomplete tables;
- (11) Classifying;
- (12) Defining;
- (13) Systematizing;
- (14) Indicating differences/ similarities; etc.

Landman and Roos (1974, p 178) explain the following about functionalizing: "Acquiring insights serves their application. A person cannot practice insights not acquired! Insights first must be acquired before they can be used". Further, they also say that, from their application of insights, it becomes evident whether their previous acquisition was genuine and thorough enough. And this indicates whether the pupils can engage in productive thinking, and if these insights are remembered correctly. Functionalizing and exercising insights refer to an internalizing, a deeper understanding, a clear striving for improved achievements, a being formed which is functional, and is a preparation for dealing with other situations, independent lived experiences, applications, and creations. Van

Dyk and Van der Stoep (1977, p 208) summarize the matter of functionalizing as follows: "Functionalizing confirms a striving to not only master and make available subject-related knowledge and skills with insight, but also to be able to make operative applications by which new potentialities and abilities emerge, and the way is traversed to attributing one's own meaning".

2.4 Evaluating the learning content: Finally, reference is made to evaluating, as functionalizing. The word "evaluate" comes from the Latin word ex + valere, which has the following meaning:

ex = from

valere = being strong, authoritative (Hannah, 1977, p 1).

Hannah (1977, p 1) declares that evaluation means "to bring something vividly to light". Originally, the two concepts "evaluating" and "valuing" had the same meaning, and the difference between them is that valuing emphasizes more attributing values, while evaluating refers to uncovering values (Hannah, 1977, p 2). Etymologically, then, the word evaluation implies discovering and determining the value of something for teaching, for the learning effect (learning gains) in its broadest sense, i.e., the cognitive, affective, and psychomotor (Bloom, 1974, pp 6-7). A teacher strives daily to improve his/her teaching by evaluating it (De Corte, 1975). "It is obvious that the teacher has to prepare the content and form of the testing or evaluating with particular thoroughness. In the first place, he must know precisely what he wants to test or evaluate. The test must be structured in such a way that he can be sure that the quality of the pupils' insights into and handling of the essentials of the learning material will be reflected in it. The form in which the test is going to be cast also requires special attention, e.g., is he going to test in terms of completing a list of questions, an essay, a prescribed practice test, a systematic explanation of content, a qualitative analysis of the pupils' own construction of an object, etc.?"

Under this heading, a teacher provides a complete explanation of both the form and content of the testing and evaluating of insights.

"During this phase of the lesson, there is especially mention of self-activity, differentiation, and tempo variation. From the nature of the matter, a pupil him/herself is given responsibility for his/her insights into the essentials of the new learning material.

Responsibility is nothing other than self-activity--a pupil initiates, mobilizes and directs his/her insights to solving related problems. **Assignment** is at the foundation of testing and evaluating, in the sense that a teacher gives the pupils the assignment to use their insights to solve a problem, to make applications, to look for specific relationships, to draw certain conclusions, etc. By virtue of a teacher's knowledge of an individual pupils' potentialities, he/she differentiates the assignments, e.g., by giving the slower or weaker pupils easier assignments, but more opportunities to exercise their insights; for the stronger pupils, he/she gives them assignments requiring more extensive and deeper insights. In this way, there is differentiation and individualization. The nature of the learning material, and the form of testing or evaluating determine whether a teacher sets a minimum time limit and whether the pupils follow their own tempo in carrying out the assignments" (Van der Stoep, et al., 1973, pp 180-181).

De Corte distinguishes the following aims of didactic evaluation:

- 1. Product evaluation:** This has to do with the degree to which the aims of the teaching have been attained, i.e., the results of the teaching. Compare post-lesson "tests" to determine how well the pupils know the work. The product or change resulting from the teaching intervention, thus, is evaluated.
- 2. Process evaluation:** This is a direct evaluation of the different phases of the lesson, more particularly of the teaching aims and of the learning content contained in the didactic methods and aids as well as the circumstances under which the results were obtained (Hannah, 1977, p 38).

Hannah (1977, pp 44 et seq.) distinguishes two sorts of evaluation:

- 1. Norm directed or summative (Tuckman):** This type of test compares the results of individual pupils with information based on a group of similar individuals. This type of test is especially useful for selecting pupils and for statistical evaluations.
- 2. Criterion directed or formative (Tuckman):** Accordingly, the pupils' achievement is related to a specific prescribed activity (behavior) that they should exercise or show as an indication that the aim has been attained. The judgment about the merit or quality of the individual pupil's achievement is made with criteria

determined beforehand, independent of the achievement of any other individual taking the test, e.g., 50% is accepted as passing for this test. This type of evaluation tries to assess the effectiveness of the teaching as such.

Finally, the test items selected must meet each of the following criteria: validity, reliability, and usability (Hannah, 1977, pp 123 et seq.).

3. REFERENCES

Bloom, B. (Ed.) (1974). **Taxonomy of educational objectives**. London: Longmans.

Calitz, L. P. and D. A. Gresse (1977). **Die Strukturele komponente van 'n les**. Supplementary study material. Johannesburg: Rand Afrikaans University.

De Corte, E. (1975). **Onderwysdoelstellingen**. Louvain: Studie Paedagogica. Second Edition.

Hannah, C. (1977). **Evaluering in didaktiese perspektief**. Unpublished D. Ed. dissertation. University of Pretoria.

Kruger, R. A. (1975). Die betekenis van die begrippe elementare en fundamentele in die didaktiese teorie en praktyk. **Pedagogic Studies**, number 86. University of Pretoria.

Landman, W. A. (1977). **Fundamental pedagogiek en onderwyspraktyk**. Durban: Butterworths.

Landman, W. A. and S. G. Roos (1974). **Die Praktykwording van die fundamentele pedagogiek**. Johannesburg: Perskor.

Van der Merwe, P. J. (1977). **Vakdidaktiese beplanning rondom die situasie van 'n Geskiedenisles**. Unpublished M. Ed. thesis, University of Pretoria.

Van der Stoep, F. (Ed.) (1973). **Die Lesstruktuur**. Johannesburg: McGraw-Hill.

Van Dyk, C. J. and F. van der Stoep (1977). **Inleiding tot die vakdidaktieke**. Johannesburg: Perskor.

