

## CHAPTER 5

### IMPLEMENTING EXPLORATORY MEDIA

#### 1. INTRODUCTION

Conversation, play, assignment, and example are ground forms based on specific forms of living and are used along with pedagogical observation and intuition.

Because there is not adequate time available, a child cannot always be studied in his/her everyday educative situation itself, use also is made of aids, also known as exploratory media. Currently, these media are referred to as **tests**. In orthopedagogic research, preference is given to the term **medium** because this indicates that it is a medium **between** the researcher and the child by which they can enter a **dialogue** with each other.

The word **medium** points to an **intermediary** (224, 533), a go-between. It is something placed **between** the researcher and child in terms of which the child, on the one hand, enters a dialogue with reality and, on the other hand, where the orthopedagogic evaluator enters a dialogue with him/her and, thus, explores his/her experiential world. With help of the media, an "indirect" conversation is entered with him/her. The "test" apparatus is secondary, and the fact that this is an **interpersonal** matter is and remains primary.

The following argument is provided for why the term "tests" is rejected:

This evaluation (diagnosis) has to do with **understanding** a child as a **subject**, i.e., a **person** who is in the world giving meaning. He/she is always in **relationships** and **situations**, and not as a being with **isolatable** functions and capacities.

No **test** can be constructed to **measure** these relationships in their coherence. No test can bring to the fore only a specific function because a person is directed to the "test" with **all** his/her potentialities/abilities.

There is no **object** which is measured, and, above all, we have to do with **exploring a subject**.

In this exploratory event, indeed, quantitative media also are used. However, they are implemented as **pedagogic** (more specifically, **orthopedagogic**), **personal exploratory media**.

## 2. THE USEFULNESS OF MEDIA

Thus, "**tests**" themselves, as isolated media, are inadequate. Nel (174, 99), Sonnekus (237, 157; 181, 23), Kouwer (110), Gouws (76; 77), Landman (117), Van Gelder (286, 43), Kijm (97, 10), and others, however, indicate that a "test" should not merely be damned because, in fact, it has much value if it fulfills certain requirements.

In the first place, a criticism of **tests** is not directed to their use but to their **misuse**, and the ways they are implemented, and in the ways the results are interpreted (see 243, 80). The test results should always be viewed as the test taker's ways of working and associating with the "test" material and fellow persons (see 302, 49; 285, 95). Hence, a critical attitude is required of the orthopedagogic evaluator, especially with respect to interpreting these results. Below, additional attention is given to the matter of interpretation.

A wide variety of media are published which can be used very fruitfully by the orthopedagogue. Naturally, this requires that he/she have thorough knowledge of the techniques which make up the various sorts of media, as well as of the relevant statistical methods.

Regarding the use of the various media, there are conspicuous differences in the ways they are implemented, merely as measuring instruments, **and** as exploratory media. Dijkhuis (52, 24-71) indicates that the former is based principally on a naturalistically (natural science) oriented perspective of assessing behavior apart from the person, and not behavior in its totality, as related to the person. This especially has to do with "testing" a so-called **psychic aspect**, e.g., a characteristic, ability, disposition, defect, negative environmental factor, sensory, motor, perceptual, and conceptual aspect, which can lead to definite behavioral deviations.

The orthopedagogic evaluator is not interested in **separate functions**, factors, or capacities because they themselves cannot be isolated and measured, and because, as **isolated** entities, they are no longer **personal** qualities.

Van Strien (302, 49) says that one cannot acquire insight into a person if one merely subjects the one studied to a cross-examination of past events, or if his/her "test behavior" is observed, or if he/she is bombarded with a battery of tests. Then, what one has is only a lifeless construction which is held together by the wires the investigator has strung him/herself. He warns that the person studied should not be seen as a **test subject** but as a **fellow human**. Thus, the child, as a person restrained in becoming adult must be gauged and understood pedagogically (see 243, 79; 172, 98) rather than involving a mere interest in the "state" of the child (see 286, 42).

Nel (172, 98) denounces the entire matter of **psychodiagnosis** of the child on anthropological-pedagogical grounds, and says that, in it, the idea of a test figures too prominently.

According to Ter Horst (258, 102), orthopedagogic evaluation is not dealing with a category system by which one can predict the problematic educative situation by a set of rules, and it also is not dealing with an etiological model. He says that the process-like character of the activity, the unfolding character of the educative dialogue and the possible indeterminate character of human behavior led to the fact that, in its "factors"--variable and invariable--the situation at each moment of change is in question, a change which is not fully predictable and, thus, not controllable by any tests. Thus, the media and acquired data, as descriptive data, are in the service of the pedagogical (see 286, 42), which means the pedagogical is evaluated and accountably integrated within the total orthopedagogic evaluation.

Because one can never encounter a child restrained in becoming adult in his/her full humanness in a businesslike relationship, the media also are acceptable in so far as they offer an invitation to enter together a world of thought, such as is the case with projective media. Also, the orthopedagogic event of evaluating itself, always progresses in a pedagogic situation and, as Van Gelder says, "... while testing, the pedagogue is no pedagogue" (206 [in Dutch]).

In the orthopedagogic situation of evaluating, the cognitive, performance, projective, and other media then are **pedagogic** aids, because this evaluating has to do with acquiring an image of the psychic life of the child-in-education who is restrained in becoming adult. Thus, implementing the Kohs blocks does not amount to applying a "test", measuring an achievement, and assigning points, but it is a subject fathoming and analyzing the ways a child throws him/herself into the varied and continually changing problematic aspects of the situation, and how he/she tries to master them.

In the following discussion, more specific attention is given to how media can be used in an orthopedagogic evaluative study.

### 3. IMPLEMENTING MEDIA

Kwakkel-Scheffer (114, 75 [in Dutch]) believes that it is not a particular method or technique which is important but "a fundamental relationship of communication which the orthopedagogue realizes, depending on the moment in the situation."

In general, in orthopedagogic evaluation there is a **combination** of quantitative, qualitative, and pedagogical evaluations regarding the use of media. Thus, in the first place, the orthopedagogue is not interested in the diagnosis of symptoms, of a mere analysis, or statistical analysis, and quantification of test results, and tests are never blindly applied.

The fact that the investigation is an interpersonal matter remains primary in applying media, and the media themselves are secondary. Implementing media is always part of the conversation between the investigator and the child. Initially, the media serve to bridge the distance between the adult and the child before establishing an authentic pedagogical encounter. By means of the media, a conversation and, indirectly, an affective relationship are established. As the affective association thrives, the implemented media also become less necessary and even superfluous.

By means of the media, a child is asked to answer questions, or to carry out activities, or to write down what he/she sees, etc. He/she must redesign for him/herself a "little piece of a world", and the investigator must analyze and evaluate this re-construction.

The orthopedagogic evaluator must also make his/her requests to the child carefully and thoroughly consider his/her level of adulthood. The child should not be overwhelmed by the media, and the unfolding of the relationship of encounter must not be obstructed. The material with which the child is confronted should be of such a nature that it is inviting to him/her, so he/she wants to be involved with it.

The work circumstances should be favorable, and it must be seen that he/she receives the necessary help and support when a task possibly becomes threatening to him/her, or if perhaps he/she might lived experience him/herself as being stuck in the situation.

Since the orthopedagogic evaluation is primarily directed to revealing deep lying gaps in the constituents of becoming adult, a shifting of the evaluative aim can occur as clarifying aspects are gradually discovered. Also, the emphasis can shift depending on the **seriousness** of the aspects gradually revealed.

It is necessary that there always be a move to a qualitative view. This entails that the orthopedagogue interprets the findings and their mutual relationships; that he/she looks for biased assumptions regarding the interpretation of the results; that he/she expresses the results categorically, which is to describe them in their essentials; and that he/she evaluates the findings in terms of pedagogical criteria.

Against the background of the above, it is necessary to indicate some aspects of the experiential world of the restrained child which can be more closely explored with the help of the media.

For example, there are media which are specifically designed to investigate sustained attending, the course of thinking, imagining, habitual lived experiencing, emotional stability or lability. In no sense does this mean **isolating** these so-called psychic functions because, by means of the media, the child reveals the ways he/she communicates with the world, and the investigator gets an indication of how he/she has constituted his/her world.

The media also are used quantitatively to control (verify) and refine the findings regarding his/her experiential world acquired in connection with observations, intuitions, and conversations. Also,

this contributes to gauging the deeper structure of his/her psychic life-in-education.

Certain media are indispensable for acquiring a **reliable** (dependable) indication of his/her **potentialities** for becoming adult. For example, the orthopedagogue must know what the child's abilities themselves are to adequately help him/her further on his/her way to adulthood.

The quality of the child's dialogue with life contents is disclosed with the help of media, and one learns to know him/her as a **person**, as a totality in communication with the world, and with respect to the **gaps** in the restrained child's communicating. Thus, the results acquired with the help of media are evaluated **quantitatively, qualitatively, and pedagogically**.

With respect to the quantitative, formal percentiles, scores, symbols, rank orders, profiles, schemes, scales, etc. figure prominently. However, the child's **being a person** cannot be expressed merely in terms of numbers, and they are examined for further explanation in terms of describing **how** a unique child arrived at a specific achievement. To integrate this, there also is an explanation and description of how he/she, as an **education situated** and historical being, has attained such an achievement.

When the concern is with getting an indication of his/her pedagogically achievable level, this has to do with his/her longitudinally viewed becoming in relation to that of a child (e.g., of his/her age) becoming adult in general. Thus, there is a comparison of a child's given potentialities, and attained personal manifestations with those of children in general who resemble him/her, a matter which, in this example, brings the concept **average** to the fore, and which can be qualified as "normal".

In the practice of using standardizing media, there is a basis for distinguishing between **standardized** and **non-standardized** media. In constructing a standardized medium, a preliminary set of questions (items) are administered to a representative group of children of a certain age, and under common circumstances. The answers (responses) to the questions (items) then are statistically analyzed to determine their "difficulty level". After this, a final set of questions is selected and again presented to a representative

group. With respect to the answers now confirmed, **norms** are determined.

In addition, there are certain requirements which a standardized medium must meet. For example, it must be **valid**, which means that it **measures what** it is claimed to **test**. Validity refers to the **adequacy** of the test. Also, a standardized medium must be **reliable**, i.e., there must be consistency regarding the results attained, because each time it "measures" what it is supposed to "measure". Further, there is a demand that a standardized medium be **objective**. This means the subjective opinions and judgments of the interpreter of the results must be eliminated as far as possible.

Regarding these formal exploratory media, there are more formal conditions and instructions which the investigator must follow in implementing them.

A great many standardized media are available and the following are especially useful in orthopedagogic evaluative studies.

#### 4. STANDARDIZED MEDIA

##### 4.1 Intelligence evaluative media

With respect to media for evaluating intelligence, there is a distinction between media for evaluating **theoretical** and **practical** intelligence. To evaluate **practical intelligence**, use is made especially of concrete materials such as wooden blocks and models. Moreover, these media also are **individual** exploratory media, although there are some **paper-and-pencil media** which can be administered in groups.

Among others, an individual medium for evaluating a child's **practical intelligence** is the **Alexander Performance Scale (2)**. It consists of three separate parts, i.e., **Block patterns**, the **Passalong**, and **Cube constructions**. The **Passalong** is an old Chinese puzzle made into a "test" by Alexander. In a tray with several rectangular blocks, one block must be moved to the opposite side. There is a series of easy to difficult tasks. The block patterns, or **Kohs blocks** consist of ten items where, with the use of four, nine, or sixteen colored blocks, a pattern must be constructed according to a picture on a card. The **Cube construction medium** is made up of three

items where, on each trial, the child must construct a presented solid block from several separate blocks.

Regarding the evaluation of **theoretical** intelligence, there also are **group** and **individual** scales. In South Africa, various media for evaluating intelligence are available and are considered in more detail in Chapter 15.

#### 4.2 Media for evaluating personal becoming (development)

With the aid of these media, an indication can be gotten of the level of **becoming** adult which the child has already attained. Currently, these media also are known as **developmental scales**. A good example of such a scale is the **Nel-Sonnekus developmental scale for preschool children** (180).

#### 4.3 Media for investigating specific aspects of the psychic life

This involves evaluating specific ways of actualizing the psychic life, such as attending, remembering, verbal reasoning, spatial perception, and understanding mechanical puzzles. In this regard, a wide variety of media are available, of which the following are a few examples: the **Bender Gestalt "test"** (16), a visual copying medium where form perception and eye-hand coordination, i.e., receptive and expressive construction are the object of study; the **Frostig Developmental test of visual perception** (67; 68; 156), which is mainly directed to the child's visual perception, and with respect to which there also are distinctions among: eye-hand coordination, figure-ground perception, form constancy, spatial location, and spatial relationships. Many media for evaluating attending/concentrating have also been published. (see 298, Chapter 4).

#### 4.4 Scales of values and interest inventories

The aim of these media is to evaluate attributes or groups of attributes in terms of a rank order scale, e.g., **extremely good, very good, good, weak, very weak, extremely weak**, or also in terms of a Likert scale of three, five or seven points.

Many questions are compiled which are to be answered by a person, e.g., regarding different occupations. Preferably those persons are selected who are successful in their occupation. Their answers then



are compared with the answers of **all** persons of the same age. With respect to each occupation, it is then decided which questions show the clearest difference from the population average, and which questions show no difference. For each occupation, a **scoring key** is constructed by which different points are given to each question according to their ability to differentiate the responses of members of the occupation from the population. With similar keys it can be determined to what degree a person's interests correspond to those of persons in different occupations.

The same procedure is also followed regarding personal dispositions, in which connection such characteristics can be mentioned as reliability, honesty, conscientiousness, responsibility, helpfulness, self-confidence, sociability, family and school relationships. By presenting the results **graphically**, a **profile** is drawn of a person's **personality characteristics**, or **relationships**.

Some examples of such questionnaires are **The Personality Inventory** of Bernreuter (18), and the **California Test of Personality**. Regarding the latter medium, characteristics are evaluated such as self-confidence, sense of self-esteem, sense of personal freedom, feeling of belonging somewhere, tendency to withdraw, social judgment, social skills, and family, school, and social relationships. In addition, there are the **C.V. Interest Inventory** (48), **Kuder Performance Record** (112), and **19 Field Interest Inventory** (200).

#### 4.5 Synthesis

Since the procedures for implementing standardized media must meet prescribed demands, the orthopedagogic evaluator must strictly adhere to them, since deviating from them will influence the reliability/validity of the results.

Moreover, it is stressed that an orthopedagogic evaluative study only makes use of **individual** media, because the child's personal dialogue with the world must be explored via the media, and such exploration is not possible with group media. In the following, closer attention is given to some **individual** exploratory media.

### 5. INDIVIDUAL MEDIA

There are many non-standardized media available. It is emphasized that all exploratory media--also standardized--continually direct an appeal to the child in the research situation and thereby involve him/her as a person in his/her totality. However, the aim of non-standardized media is to explore a unique person in his/her dialogue with life, and **individual** media are used to do this. Regarding these individual exploratory media, distinctions are made among performance, projective, and language media.

### 5.1 Performance media

Any medium belongs here which invites the child to be involved with it, and which then enables the researcher to observe his/her dialogue with it and, thereby, with the world.

In discussing **pedagogical observation** as an orthopedagogic evaluative mode, aid that it must be viewed as a **pedagogical conversation**, because over and above the child's involvement in an activity with the specific medium, he/she is continually in a **relationship** with the investigator, and the orthopedagogic evaluator remains an educator who, at any moment can **intervene** or **concur** with the child.

It also is necessary that the observer is not merely an onlooker, but that he/she actively eliminates any distance between him/herself and the child, and makes him/herself present **there** in the child's **landscape of activities**. The performance media are never handled by the child away from the researcher and, therefore, the **encounter** between them is promoted (77, 39). Expressions, such as smiling, blushing, shyness, embarrassment also indicate whether the encounter has succeeded or not, according to Oberholzer (184, 27).

Also, the orthopedagogic evaluator doesn't observe the child only for a short time in the performance situation, but observation is an integral part of the entire investigation. In addition, initially, a child is confronted only with the less formal media or, as Van Gelder says, with "introductory tests" (287, 140).

The attitude of the orthopedagogue must continually give evidence of regularity, flexibility, being unremarkable, accuracy, and objectivity. He/she must be able to empathize with the child's involvement to be attuned to his/her momentary meanings on an

emotional and cognitive level and continually sympathize (feel with) with him/her.

In the invitation to deal with the media, any form of superiority is avoided (see 77, 39). With reference to the invitation to become involved with the tasks, Kijm (97, 51) notes, "We meet something analogous to the enticement in love play, in which one who has taken the initiative continually tries to let the other party take the initiative".

With the help of performance media, a situation is created within which the child restrained in becoming adult feels calm and secure. The researcher must never give the impression that he/she is **examining** him/her.

Because the researcher seldom can remember everything that he/she perceives, it is necessary that he/she **inconspicuously** write down the most important matters. This requires a succinct and accurate description in terms of concepts which are **descriptive**, rather than **evaluative**, and what is perceived must rest on **sufficient** and **coherent** facts.

With the aim of systematic and purposive observation, the orthopedagogic evaluator must establish for him/herself particular guidelines regarding specific performance media, which then must be considered. Among others, there is reference to the ways of actualizing the psychic life, which figure prominently. The ways of being a child cannot be perceived as such, but are knowable in his/her behaviors, which are the key to understanding his/her momentary personal actualization. In this respect, the performance media allow the researcher to disclose different aspects in a short period of time, such as his/her anxiety, sadness, calmness, peace of mind, security, uncertainty, interest, self-confidence, his/her exploration, emancipation, instantiations, objectivity, and differentiation (see 238, 34-39, Chapter 4); his/her sensing, attending, visual, and auditory perceiving, thinking, imagining and fantasizing; his/her spatial orientation, gross and fine motor coordination, laterality, etc. in terms of aspects of behavior, such as attitude, gestures, and other expressions. Through his/her words, actions, movements, achievements, he/she gives an indication of the nature of actualizing his/her relevant modes of being, as modes of actualizing his/her psychic life.

It is noted whether he/she is hurried ,or calm; how he/she acts when he/she fails, or succeeds; the methods he/she uses to complete the task; if he/she shows persistence; if there is an ordered, planned approach; if he/she possibly is fixated on little details, or arrives at a comprehensive overview; if he/she accepts help, or turns it down; if he/she works slowly, or quickly; if he/she approaches the task superficially; if he/she is careful or careless; if he/she acts skillfully or not; and if he/she is directed to being responsible or not (see also 174, 105, et seq.; 77, 39-40; 107, 96-97).

The orthopedagogue also is particularly interested in the nature and quality of the restrained child's lived experiences. An indication of this is found, e.g., in the ways he/she asks for an explanation of what he/she must do. For example, if he/she only understands what to do if the task must be explained concretely, this might indicate a lived experiencing on a pathic level. If his/her grasp continually gives evidence of planning and insight, this also indicates a gnostic/cognitive lived experiencing, the actualization of attending, and the gnostic-cognitive modes of actualizing the psychic life.

Attention also must be given to his/her **work** attitude. In this regard, Nel (174, 104; see also 77, 40; 107, 97) distinguishes the following attitudes:

- (i) A **playful attitude**, where he/she allows him/herself to be guided only in a limited degree by the material related to the invitation to attain a specific aim;
- (ii) **an optimistic attitude**, where he/she does not seriously accept the task as a whole;
- (iii) **a tense attitude**, where he/she remains extremely aware of the task and, consequently, it really dominates;
- (iv) **a balanced attitude**, where he/she has a notion of the task and the possibilities which the material offers.

Thus, the researcher must determine whether his/her work attitude is persistent, busy, diligent, playful, uncertain, tense, optimistic, dependent, or full of self-confidence.

Also, regarding the child's involvement with the task as such, the **level** on which this occurs must be noted (see 77, 40; 94, 61). This has to do with the nature and quality of his/her handling the material. Attention is not only given to the **course** of his/her

involvement, but also to possible preparatory activities carried out, e.g., to first order the materials neatly, to sit to the extreme right, to group subparts together, etc. Such actions might, e.g., indicate that he/she is attuned to order, or perhaps is evidence of possible compulsivity.

Linking up with Nel (174, 104), Gouws (77, 40) and Joubert (95, 64-65), the following levels of work are distinguished regarding the nature and quality of the child's dealing with the materials:

- (i) **A chaotic level**, where he/she does not arrive at a comprehensive overview of the task. He/she works helter-skelter, remains without plan, and is active without really being meaningfully involved. Kotze (107, 97) says that such a grasp is evidence of a predominantly pathic attunement by means of sensing;
- (ii) **a stereotypic level**, where he/she stagnates in trial-and-error methods, and relies on "luck", in the hope that he/she will succeed. On such a level, he/she usually discovers that his/her method does not lead to a solution, and this gives rise to anxiety and tension;
- (iii) **a concrete-practical level**, where there are signs of improved planning and methods. There is an active attempt, and the preliminary actions are brought into relation with the real aim. There are usually periods of looking, gauging, trial-and-error, alternating with purposive activity; and
- (iv) **a coordinated-abstract level**, where there are indications that he/she plans before he/she acts. He/she shows that he/she has insight into the structure of the ultimate aim, and that his/her handling of the material is continually directed to achieving that aim. His/her involvement gives evidence of schematizing, and systematizing and, thus, of cognitive/gnostic lived experiencing. and the adequate actualization of perceiving, thinking, etc. according to Kotze (107, 97).

With respect to the work level, the researcher must observe how the child goes about solving the problem, if he/she completes the task and, in this connection, which difficulties he/she lived experiences, and how these difficulties influence his/her ways of attacking the problem. Thus, it is observed whether there is an elevation in the level of thinking, or if he/she perhaps reverts to a lower level.

With the help of performance media, the orthopedagogic evaluator, by his/her observations which he/she continually evaluates in terms of the pedagogical, can come to know much about the experiential world of the child restrained in becoming adult. In this connection, one can refer to some examples:

If a child is too "afraid" to make a mistake, is this perhaps an indication of a feeling that he/she is not accepted, or perhaps is over-estimated by his/her parents. Remarks such as "I am very awkward", "I have never done such a thing before" and attempts to speak well of possible mistakes before they are made are self-evident.

Among others, the investigator can ask the following questions:

- Is the child ready to throw him/herself into the task?
- Is he/she ready to accept sympathetic authoritative guidance?
- Does he/she expect to be supported by the adult?
- Is he/she completely dependent on the adult?

In Chapter 7, there is more discussion of performance media which can be fruitfully used in an orthopedagogic evaluative study.

## 5.2 Media for exploring expressive and projective aims

### 5.2.1 Projective techniques

In a later chapter, the concept of projection is dealt with in detail, and here it is sufficient to note that, with the help of projective media, one can penetrate "deeper" into the child's experiential world to detect what, in other ways, cannot be brought to light. The following media are especially useful for this: The **Rorschach Inkblot** medium, which is very suitable for gauging the **structure** of his/her psychic life; and **thematic** media, such as the **Thematic Apperception Test** of Murray (1966), also known as the T. A. T., the **Children's Apperception Test** (C. A. T.) of the Bellacks (1955), the **South African Picture Analysis Test** (S.A.P. A. T.) of Nel and Pelser (1979), etc.

### 5.2.2 Graphic expression media

Here use is made especially of the child's drawings to explore his/her personal being. For example, he/she is requested to draw a

person, a tree, a house, and more with an ordinary or colored pencil. Although known as expressive media, it is found that he/she can also project him/herself into the drawings.

### 5.2.3 Language media

A variety of language media also can be used fruitfully, such as completing incomplete sentences presented to him/her, writing a paragraph, an essay, etc.

## 6. SYNTHESIS

Regarding the choice of a particular medium, the orthopedagogic evaluator always makes sure that it is **education promoting**, and that it can throw light on the problematic aspects of the child's educative situation. Therefore, Ter Horst (258, 101) says that the media must be embedded in the educative event within the totality of the evolving dialogue with the child. In other words, "each orthopedagogic aid constitutes part of an individual plan of action, where the totality of the educative situation is considered" (258, 101 [in Dutch]).

Orthopedagogic evaluation results in establishing a **person image** or an **experiential world image** of the child restrained in becoming adult. Such an image gives an indication of the unique child's relationship with life contents, which he/she has established on his/her own initiative, and under the guidance of the adult. This implies an image of the modes of actualization, by which the child with problems in becoming adult displays him/herself within these relationships. Hence, it is an image of his/her personal **meanings**, and of his/her giving meaning by actualizing-his/her-psycho-life-in-education.