

CHAPTER 5

IMPLEMENTING EXPLORATORY MEDIA

1. INTRODUCTION

Conversation, play, assignment and example are fundamental methods based on particular forms of living and along with these pedagogic observation and intuition are used.

Because a child cannot always be studied in his everyday educative situation, as such, because there is not adequate time available, use also is made of particular 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 in terms of which they can enter into **dialogue** with each other.

The word **medium** really 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 into dialogue with reality and, on the other hand, where the orthopedagogic evaluator enters into dialogue with him and thus explores his experiential world. With help of the media, an "indirect" conversation is entered with him. The test apparatus is absolutely secondary and the fact that this is an **interpersonal** matter is and remains primary.

The following argument can, among others, be provided for why the term **tests** has to be rejected:

This evaluation has to do with **understanding** a child as a **subject**, i.e., a **person** who is in the world giving meaning. He always finds himself 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 particular function because a person is directed to the "test" with **all** of his potentialities/abilities.

There is no **object** that 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

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

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

A wide variety of media have already been published which can be used very fruitfully by the orthopedagogue. Naturally this requires that he have thorough knowledge of the techniques that 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 between 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 oriented perspective of assessing behavior apart from the person and not behavior in its totality as related to the person. This has to do especially with "testing" a particular so-called **psychic aspect**, e.g., a characteristic, ability, disposition, defect, negative environmental factor, sensory, motor, perceptual and conceptual aspect that can lead to definite behavioral deviations.

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

Van Strien (302, 49) says one cannot acquire insight into a person if one merely subjects the one studied to a cross-examination of past events, or if his "test behavior" is observed or if he is bombarded with a battery of tests. Then what one has is only a lifeless construction that is held together by the wires the investigator has strung himself. 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 has to 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 lead to the fact that in its "factors"--variable and invariable--the situation at each moment of change is in question, a change that is not fully predictable and thus also not controllable by any tests. Consequently, it is clear that the media and acquired data as descriptive data are in the service of the pedagogic (see 286, 42) which means the pedagogic is evaluated and accountably integrated within the total orthopedagogic evaluation.

Because one can never encounter a child restrained in becoming adult in his full humanness in a business-like relationship, the media also are acceptable in so far as they offer an invitation to enter together into a world of thought such as is the case with projective media. Also, the orthopedagogic event of evaluating, as such, 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 really 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 himself into the varied and continually changing problematic aspects of the situation and how he 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]) is of the opinion that it is not a particular method or technique that is important but "a fundamental relationship of communication that the orthopedagogue realizes depending on the moment in the situation."

In general, in orthopedagogic evaluation there is a **combination** of quantitative, qualitative and pedagogic evaluation 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 never are blindly applied.

The fact that the investigation is an interpersonal matter remains primary in applying media and the media themselves are secondary. Implementing media always is 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 pedagogic 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 all the less necessary and even superfluous.

By means of the media, a child is asked to answer particular questions or to carry out particular activities or to write down what he sees, etc. He has to redesign for himself a "little piece of a world" and the investigator has to analyze and evaluate this reconstruction.

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

The work circumstances should be favorable and it must be seen that he receives the necessary help and support when a task possibly becomes threatening to him or if perhaps he might have experienced himself as being stuck in the situation.

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

It is necessary that there always be a move to a qualitative view. This entails that the orthopedagogue interpret the findings and their mutual relationships; that he look for biased assumptions regarding the interpretation of the results; that he express the results categorically, that is describe them in their essentials; and that he evaluate the findings in terms of pedagogic criteria.

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

For example, there are media that 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 communicates with the world and the investigator gets an indication of how he has constituted his world.

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

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

Certain media clearly are indispensable for acquiring a **reliable** indication of his **potentialities** for becoming adult. For example, the orthopedagogue has to know what his abilities are, as such, in order to adequately help him further on his 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 as a **person**, as a totality in communication with the world and with respect to the **gaps** in the restrained child's communicating in particular. Thus the results acquired with the help of media are evaluated **quantitatively, qualitatively and pedagogically**.

With respect to the quantitative, formal percents, 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 particular child arrived at a specific achievement. To integrate this, there also is an explanation and description of how he, as an **education situated** and historical being, has attained such an achievement.

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

In the practice of standardizing media, there is a basis for distinguishing between **standardized** and **non-standardized** media. In constructing a standardized medium, a preliminary set of questions are administered to a representative group of children of a particular age and under more or less common circumstances. The answers to the questions 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 that a standardized medium has to meet. For example, it has to be **valid**, which means that it **measures what** it is claimed to **test**. Validity is connected with the **adequacy** of the test. Also, a standardized medium has to be **reliable**, i.e., there has to 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 that the subjective opinions and judgments of the interpreter of the results have to be eliminated as far as possible.

Regarding these formal exploratory media there also are more formal conditions and instructions that the investigator has to follow in implementing them.

A great many standardized media have already been designed and the following are especially made use of 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** that 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, namely, **Block patterns**, the **Passalong** and **Cube constructions**. The **Passalong** is an old Chinese puzzle made into a "test" by Alexander. In a tray with a number of rectangular blocks, one block has to 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 has

to construct a presented solid block from a number of 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 will be considered in more detail in a later chapter.

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 that 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. A large number of 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 particular 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.

A large number of 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 differentiation 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** can be 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 also 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 have to meet particular prescribed demands, the orthopedagogic evaluator has to strictly adhere to them since deviating from them will influence the reliability/validity of the results.

Moreover, it should be stressed that an orthopedagogic evaluative study only makes use of **individual** media because the child's personal dialogue with the world has to 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 a large number of non-standardized media available. It has already been emphasized that all exploratory media--also standardized--continually direct an appeal to the child in the research situation and thereby involve him as a person in his totality. However, the aim of non-standardized media clearly is to explore a unique person in his 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 that invites the child to be involved with it and that then puts the researcher in a position to observe his dialogue with it and thereby with the world.

In discussing **pedagogic observation** as an orthopedagogic evaluative aid, it appeared that it has to be viewed as a **pedagogic conversation** because over and above the child's involvement in an activity with the particular medium he also continually is 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 actively eliminates any distance between himself and the child and make himself 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 has to continually give evidence of regularity, flexibility, unremarkableness, accuracy and objectivity. He has to be in a position to empathize with the child's involvement in order to be attuned to his momentary meanings on an emotional and cognitive level and continually sympathize (feel with) with him.

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 is **examining** him.

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

With the aim of systematic and purposive observation, the orthopedagogic evaluator has to establish for himself particular guidelines regarding specific performance media that then have to be taken into account. Some of these follow.

Among others there is reference to the particular ways of actualizing the psychic life that figure prominently. The ways of being a child cannot be perceived, as such, but are knowable in his behaviors which are the key to understanding his 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 anxiety, sadness, calmness, peace of mind, security, uncertainty, interest, self-confidence, his exploration, emancipation, distantiation, objectivity, and differentiation (see 238, 34-39, Chapter 4); his sensing, attending, visual and auditory perceiving, thinking, imagining and fantasizing; his spatial orientation, gross and fine motor coordination, laterality, etc. in terms of aspects of

behavior such as attitude, gestures and other expressions. Through his words, actions, movements, achievements he gives an indication of the nature of actualizing his relevant modes of being as modes of actualizing his psychic life.

It is noted whether he is hurried or calm; how he acts when he fails or succeeds; the methods he uses to complete the task; if he shows persistence; if there is an ordered, planned approach; if he possibly is fixated on little details or arrives at a comprehensive overview; if he accepts help or turns it down; if he works slowly or quickly; if he approaches the task superficially; if he is careful or careless; if he acts skillfully or not; and if he 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 a he needs an explanation of what he has to do. For example, if he only understands what to do if the task has to be explained concretely this indicates a lived experiencing on a pathic level. If his grasp continually gives evidence of planning and insight, this also indicates a gnostic lived experiencing, the actualization of attending and the gnostic-cognitive modes of actualizing the psychic life.

In particular, attention also has to be given to his **work** attitude. In this regard, Nel (174, 104; see also 77, 40; 107, 97) distinguishes among the following attitudes:

- (i) A **playful attitude** where he allows himself 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 does not seriously accept the task as a whole;
- (iii) a **tense attitude** where he remains extremely aware of the task and, consequently, it really dominates;
- (iv) a **balanced attitude** where he has a notion of the task and the possibilities that the material offers.

Thus, the researcher has to determine whether his 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 has to be noted (see 77, 40; 94, 61). This has to do with the nature and quality of his handling the material. Attention is not only given to the **course** of his involvement but also to possible preparatory activities carried out, e.g., to first neatly order the materials, to sit to the extreme right, to group subparts together, etc. Such actions might, e.g., indicate that he 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 can be distinguished regarding the nature and quality of the child's dealing with the materials:

- (i) A **chaotic level** where he does not arrive at a comprehensive overview of the task. He 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 stagnates in trial-and-error methods and relies on "luck" in the hope that he will succeed. On such a level he usually discovers that his 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 plans before he acts. He shows that he has insight into the structure of the ultimate aim and that his handling of the material is continually directed to achieving that aim. His 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 has to observe how the child goes about solving the problem, if he completes the task and in this connection which difficulties he lived experiences and how these difficulties influence his ways of attacking the problem.

Thus, it is observed whether there is an elevation in the level of thinking or if he perhaps reverts to a lower level.

With the help of performance media the orthopedagogic evaluator, on the basis of his observations that he continually evaluates in terms of the pedagogic, 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 is not accepted or perhaps is over-estimated by his 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 himself into the task?
- Is he ready to accept sympathetic authoritative guidance?
- Does he expect to be supported by the adult?
- Is he completely dependent on the adult?

In Chapter 7 there is more discussion of performance media that 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 in order 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 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 Pelsler (1979), etc.

5.2.2 Graphic expression media

Here use is made especially of the child's drawings to explore his personal being. For example, he 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 can also project himself 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, writing a paragraph, an essay, etc.

6. SYNTHESIS

Regarding the choice of a particular medium, the orthopedagogic evaluator always makes sure that it will be **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 particular child's relationship with life contents that he has established on his own initiative and under the guidance of the adult. This implies an image of the particular modes of actualization by which the child with problems in becoming adult displays himself within these relationships. Consequently, it is an image of his personal **meanings** and of his giving meaning by actualizing-his-psyche-life-in-education.