

Mikhail NaidenovI., Dr.psychology,

The Institute of Reflective Investigations and Specialisations,
Zaporozhye, Institute of Increasing Qualification, Donetsk

COMPARATIVE RESEARCH OF REFLEXIVITY AS OPPOSITION TO IMPULSIVENESS AND REFLEXIVITY AS RECOMPREHENSION

1. The subject of research

The subject of research is psychometric characteristic of MFF method and method of contextual functional-parametrical analysis for the investigation of group reflection.

2. Examinees

Examinees 36 persons (12 triads)

3. MFF method and its programme realization on IBM - matching computer (juri.B.maksimenko)

The key notion of the differential psychology of teaching is the notion of the cognitive style which characterizes the individually-preferred steady aspect and the method of teaching.

The style "impulsivity-reflexion" was singled out by I. (1966) when analysing peculiarities of working out a problem which assumed visual choice from some test's objects of standard figure which was shown for identification.

The difference between examinees in rate and accuracy in making a decision lays in foundation of typological classification.

Taking a decision quickly without one's sufficient grounds is the way of impulsive person.

In reading and spelling the "impulsive" person make more faults than reflexive one's give a quick answer, out insufficient ability to concentration of attention

The "reflexive persons" consider their answers thoroughly, check their hypotheses with regard for probability, a careful, considered, accurate answer.

"Matching Familiar Figures Test" is used for impulsivity-reflection" diagnostic which was worked out by I. (1966)

The material of the test consists of a set of the stimuli which is united in 12 series. are 6 figures in every series which differ from each other in small details and one standard figure. aim of the examinee is to find a figure which is identical to standard. spite of this time of the fulfilment of the task, number of faults and the efficiency of work is registered in automatized rate. Test MFF-20 is created by analogy with MFF-12. difference from MFF-12 consists in increasing of the extent and complication of the test material. and MFF-20 went off standardization on the choice of the children under school age, schoolchildren, students of the vocational schools (the total volume of the extract-150 persons).

The order of work with the programme. posed a window "menu", contains some models of work: guiding principles, MFF-12, MFF-20, the conclusion of results, of work.

The guidance allows to look through the given text on the screen or to receive its copy on the printer.

The choice of the text MFF-12 or MFF-20 causes the window with following information:

examinee
time installation
testing
w/m testing
return to menu

Before the beginning it is necessary to determine the category of examinees ;test MFF-12 is settled accounts with the children under school age and school children of the junior school age, age and the senior school age, MFF-20 is intended for school children of fo grown-ups. The choice of mode of examinees will set in appear of the window "Age categories " with a list of all age categories, are to be carried out of testing. According to the default the category f "preschool children" is set for MFF-12, the "younger school children age" is for MFF-20.

Time installation causes the window "time" which permits to set minimum, maximum or unlimited time of answer. case of choice of limited time a window will appear, to set or to abolish the time of indication on the screen of the display. In case of a choice of time indication the whole work of an examinee is accompanied by time scale. to the default time is unlimited.

The mode "Testing" begins testing directly with a computer. It is necessary for this to input the names of examinees and to push the button "Enter". first picture is a training picture (is not taken into consideration in the processing).

A window will appear after finishing the operation

Attention
Shall continue the input of
the data?

(Y/N)

To repeat an operation with another examinees in the same mode it is necessary to push the button "Y", input the following name and continue an operation. If it is necessary to change an age category or a time to choice another test or to end the operation, the button "N".

The choice of the mode of " without machine testing " allows to realize a processing of the group results or individual without machine testing. Age category of examinees is inputed before the beginning of testing. After the input of a name of examinee a window with a list will appear, and it is necessary to fill it up. The first column is the number of the picture It is necessary to start the flling with the second column "Time for answer ". The time is introduced in seconds tenth parts of a second are separated with a point. example, 12, seconds are inputed as 12, and is pressed "Enter". If the picture wasn't used, time is inputed entered as 0. input of all meanings of time, were used for pictures, cursor goes to the thir column " stimuli ". In the case of discovering an error by input of time it is possible to refuse from inputed information with the help of the key "Esc" and repeat input from the beginning. While filling up stimuli, is necessary to mark with the space the stimuli which the examinee has chosen for every picture. In this case all chosen stimuli (right and wrong) are marked. In the case of non-fulfilment of the task, the marking of all 6 stimuli is realised. The abolition of wrong-marked stimulus is realised with the space. filling up of all chosen stimuli it is necessary to press "Enter". If all worked pictures are entered the window will appear

Attention
Shall continue the input of
the data ?

(Y/N)

In the case of absence of this information it is necessary to check up if all stimuli are introduced and include the missed stimuli. the case of processing of some cards with the results of testing one must confirm continuation of input. order to change the test or the age category of examinees it is necessary to go to the window of the based menu, corresponding changes and proceed to non-machine testing.

All introduced information is preserved in the processor storage up to the output of results to printer. The greatest number of the examinees is 50 by any test.

The output of results takes place from the essential window of :Menu: By this it is possible to input on display and printer.

"End of operation " of based window completes the work with a programme. the case of partial output of printer of information about the results of work of examinee, warning about capability of the loss of information takes place. testing.

All introduced information is preserved in the processor storage up to the output of results to printer. The greatest number of the examinees is 50 by any test.

The output of results takes place from the essential window of :Menu: By this it is possible to input on display and printer.

"End of operation " of based window completes the work with a programme. the case of partial output of printer of information about the results of work of examinee, warning about capability of the loss on formaton takes place.

Reliability $r=0$, Experimental validness as compared to RAVEN methods Authenticity level 1% according to Gerasimov

4 Elaborated method of contextual functional-parametrical analysis for the investigation of group reflection

Elaborated method of contextual functional-parametrical analysis for the investigation of group reflection

Reflexion is considered as a mechanism of creative thinking and selfdevelopment of personality.

In the limits of the given direction the specificity of the τ деф в процесса creative process is defined with the help of necessity of the overcoming the conflict and problematical character of the situation, the problematical character is derivative from the contradiction between the demands to find something new and lack of means of search, conflict character arises because of the feeling of the personality's impossibility to find the way out of the problematic situation by himself to be unable to creation.

In conditions of the joint creative search the specific problematic-conflict situation arises, reflects the necessity to devide the problem together. decision supposes the working out of the common strategy, way of the decision. involved in this situatin every participant actualised his vital experience of the realisation himself as a member of the group. case, the ways of the joint activity's construction, by every member of the group, not coincide or contradict each other in something, a new quality of the problematic-conflict situation arises it's social-psychological aspect. The mechanisms of the overcoming the situation's problemness and conflictness are intellectual and personal reflection, the group reflection-the mechanism of the overcoming the пробл конвл сит social-psychological aspect of the situation.

From this point of view individual creative abilities display in effective overcoming of the problemness and conflictness of the situation, ability, man oneself as a creator of the new realisation of the problematic situation, new situation of selfopening and selfrealisation.

Reflection ability is a systematical formation, intellectual, and communicative-cooperative components, by the double orientation to oneself and to the partners (group in the whole). ability in the conditions of the joint creatness is the basis of the personal independence's preservation and. simultaneously the reason of the rise of unity of group actions at the time of the problem's solution.

The common aim of their usage is to continue such investigation as. and study reflexive mechanisms. We want to underline that we consider the group as a. of activity. So the bearer of group reflexion is the subject of group reflexion, distributed among the group's members.

For the realization of each of the named research strategies we use the common for this kind of investigation experimental scheme and common example of the treatment. Preparing of stimulative material, instructions, experimental complex (specially equipped tape recorder for the separate fixation of the each examinee's speech), experimental blanks for observation and rooms is holding in standart form.

The creative tasks with indefinite of method of decision for the examinee represented in a text form, acted in the capacity of stimulative material. The examinees had possibilities to read the tasks many times. The time was not limited. The tasks were selected in a way when had several answers. The normative ways of the group decision were known to the experimenter before hand, that guaranteed calculation of the indices of the productivity of tasks decision - the mark of the level's achievement of whole group's result. Besides the indices oriented towards final result for creative thinking, we used the processive indices: structural and dynamic and functional.

For characterising these indices acquaintance with the conceptual model of discursive thinking at the time of the decision the creative tasks by group is necessary. It provides the advantage of the psychological approach over the social-psychological in our research.

Let's continue the acquaintance in the experimental scheme in post-procedure part. 3

The recorder's tape of the special technique turns into document. This document (protocol) is analysed according the conceptual indices for getting processual indices of the task's decision in future. Conceptual indices are the necessary basis of the following conceptual model: when stating the problem of investigation of group reflexive analysis of protocol processes we are based on the four-level model of discursive thinking (I. Semenov, S. As for group thinking there were hypothetically singled out two components: communicative and cooperative. These two components were built as superstructure over

Realisation of the idea of group's subject as activity's. promotes the idea of the maximum variant's variety of the group's decision depending on the staff the examinees and their positions. So we underline the following strategies of the cooperation: limited unity, leadership-suppression, unity-differentiation, unity-integration.

First of them - "leadership-suppression" is characterised by the domination of one of the participants with the simultaneous competition of other members. In this case selfbreaking of the collective-personal elements and interactivity as a competition are possible. For the second - "limited unity", is characterised by the one member leadership at time of the forced passiveness of others participants. The elementary forms of interactive by the form of cooperation may be present here collective-personal elements may display in negative and positive roles. In its strength strategy "limited unity" contains preconditions for the change to collective positions. Strategies "unity differentiation" is characterised by the realisation of functions' division for every partner purposeful and perfectness and methods of the creative thinking is frames of accepted decision. Besides here

we take into consideration not only the division between participants of the different task's parts. But this joint decision when one of the partners chiefly makes reflexive function of control as regulates the processes of the interactivity and others, using these moments move further in their decision of semantic problemness. Group reflexion may display in its positive role and communicative-cooperative sphere may display in the role of cooperation.

The difference of the strategy "unity-integration" is concluded in the fact that the reflexive mechanisms function not only within personality's perfection in the frames of narrow specialisation групп интеграция especially for distraction of these limits (for mastering the cooperation with all functions necessary for creative decision by each member) in the whole volume, so, in short, for foundation of every partner integral reflexion.

From this point of view all the possible variants of decision could be drawn to one of the four named types.

Special packet of personal computer's programmes (Yuri Repetsky] allows to experimental procedure and resultative indices. Interpretation is made in the form of individual or generalised indices. Tables, graphics, statistic criteries relieve the process of generalisation of the results. результатов

The plan of examinees's group activity, having successfully decided the task, expressed many more and it is statistically approved on the 1 percent level according to the student's indice. On the other side, the plan of individual activity is less expressed in 1, times. действий группы In the whole it proves the fact of the leading role of group activity's form at the time of the joint solution of creative tasks for the achievement the exact answer.

In the case of the individual activity of the establishment the standard of the orientation of the indices' tendencies comparing the successful & unsuccessful decision is determined at all the meaning in the form of their less expression in the except of the examinee's, who индивидуальная decided the experimental task unsuccessfully, & it improved for the активность second level of integrity on the 1 percent level, & for the first & third levels of PIA integrity accordingly on the 1 & 5% level of the significance.

The component of individual-personal reflexion has a tendency to the considerable coming down (in 1, times). It is for sure the 5% significance level too. The perspective & retrospective reflexion in рефлексии the individual sphere arises.

The comparison of the given type of reflexion with its collective form shows, that the development's tendency of the collective form excels the tendencies of the development of individual form considerably in 5, times. It testifies the great adequateness in group solution of the collectives activity' form in comparison with individual ones.

So, the existed contradictions show that the positive comingdown of the individual form of personal reflexion is proved by means of situative form which represents by itself the positive factor the evident arising of the specific growity for the positive decision is typical as for the evid

C A K E S

Two woodcutters, Nikita and Pavel, worked together in the forest and sat down to have a breakfast. Nikita had 4 cakes, Pavel had 7 cakes. Then a hunter came to them. " Sorry, chaps, I have lost my way in the forest and the village is far from here. But I am very hungry. Please, share your food with me". " Let it be. Sit down, please. You are welcome to all we have", said Nikita and Pavel. Eleven cakes were divided to them in three equal parts. After breakfast the hunter put his hand down into his pocket and found there a tenkopeck coin and onekopeck coin. He said: " Don't judge me too severely, chaps, I haven't anything more with me. Share it as you know." The hunter went away and the woodcutters began to argue. Nikita said:" To my mind it is necessary to divide

money in equal parts." But Pavel objected to him: "There are 11 copecks for 11 cakes. There is one copeck for each cake. You had 4 cakes it means you get 4 copecks and I had 7 cakes it means 7 copecks for me". Who did the right conclusion ?

DISCUSSION

According to preliminary information reflexive persons possess reflexiveness only partially as to thoughtfulness is concerned. Spontaneity is realized in the ability to respond to stimulus in a sense that intellectual reflection is effective only **NO** before recomprehension is done, reflexive persons make choice before spontaneity is overcome.

But it's very important to have all the components according to individual and group activity.

In the process of comparative analysis of the information obtained with the help of.... we came to the conclusion that a compound type possesses greater ability to reflex, that is to recomprehend.

The given research enabled us to differentiate between reflexiveness & reflexive potential, that is a human's ability to obtain all kinds of reflections. Reflexiveness can be considered as an opposition to impulsiveness in a shape of immediate spontaneous decision.

Thus on the one side a test is based on intellectual reflection but in a branch of interaction in its spontaneous manifestations enable us to exceed the limits of intellectual reflection. In that way with the help of method of contextual functional-parametrical analysis we could explain some reasons why some decisions had been taken spontaneously. Lesser number of mistakes and reasonable hypotheses of the reflexive persons show that up to a certain moment they avoid manifesting their internal actions. In its turn the further study of MFF methods permits us to explain some phenomena of reflexive potential.

Experimental validation of MFF was made relatively to Ravens test. That proves validity MFF in the intellectual sphere. The problem is in specifics of MFF in reflectivity.

Discursive methods of solving creative tasks is unique because it's possible to develop reflexion with the help of it being understood as a means of stirring up creative abilities, is interpreted as a means of overcoming stereotypes which prevent from creative work.

CONCLUSIONS

1. The reflexive persons according to MFF method don't possess the ability for personal reflexion, that self-realization.

2. A compound type is correlated with reflexive type according to contextual analysis method, means that these examinees are able to overcome themselves after they had failed to solve the problem.

3. The impulsive examinees show low productivity in solving tasks contained in both methods. It means that they have neither ability for spontaneous thoughtfulness nor recomprehension.

4. It was discovered that MFF validity is referred to the branch of spontaneous thoughtfulness.

5. Differences between the terms reflectiveness and reflection were discovered.