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Resumé : problems of active social programme learning

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VIII. RESUMÉ

PROBLEMS OF ACTIVE SOCIAL PROGRAMME LEARNING

The method of the active social programme learning (ASPL) represents one of the procelures employed in the last nine years in the CSSR in acquiring and fixing social experience and in influencing the components of group and individual consciousness. It was developed in 1976 at the Department of Psychology, Faculty of Arts, J. E. Purkyně University, Brno; before that time it was experimentally used in the field during schooling in different spheres of the national economy in several modifications in managers of different degrees of management. The theoretical basis and starting point of ASPL is Linhart's functional system of activity. ASPL is understood as a programme formation of optimum plans of activity and regulating components of both individual and group consciousness. It is a controlled improvement of social activities in the course of the group solution of problematic situations on the basis of stimulation, social contact, mutual relations between the evaluating, motivating complex, between the integration of the information about the results of the central evaluation, the commong working subject and personality factors. It serves the deepening of controlling social activities, social skills, abilities. The method of active social programme learning (ASPL) is an activating method, making it possible to solve special problems of workplaces. It is a specialized programme which was applied with positive results at dozens of workplaces. The programme is prepared by means of preliminary research by which it is necessary to find what problems occur at the respective type of workplace most often and which of them were the most serious. They serve as a basis for compiling a pattern with instructive questions which are presented to solver groups of 8—10 members for a group controlled discussion. The paper brings patterns used in the research in the political sphere, in the industry, in mining, transport and telecommunication, power production, trade, education (teachers, pupils, parents, university students), health service (managers, pupils of the secondary school of hygiene, nurses), prisoners, altogether 353 examples. In all solvers ($n = 422$) in all solver groups ($n = 38$) an overall psychological examination was performed. The course of discussions was fixed by means of videorecords or tape records. After finishing a single course usually lasting 6—7 hours, the participants in the schooling, in the same way as before its beginning, evaluated their attitudes, motives; the same evaluation was carried out by independent observed. In several cases the course was repeated with further examples. An experiment was also performed in which the transfer of the acquired cognitive skills was checked; checking was also done concerning the changes in behaviour several months after the course. Besides the course of ASPL also its determinants and factors were established.

The starting point for evaluating the effectivity of ASPL were the sign significant units (SSU), i.e. original suggestions at solving each individual problem solved in each individual solver. An original solution is understood — in the sense of cognitive analysis — to be a unit of thought expressed by a sentence and forming the cognitive nucleus (core). It is not a grammatical unit, but a cognitive unit, usually combining one to sveral grammatical units. This cognitive nucleus expressed by a sentence unit or several units, is the basis for judging the effect of the group learning. For each

solver a time series was designed represented by the number of cognitive nuclei (SSU) in the first, the second to the eleventh problem, repeating suggestion of solving the problem not being included into cognitive nuclei.

The time series were also transformed into indices expressing the varying or increasing activity of individuals in solving the problems, from one example to another and from problem to problem. The criterion for calculating the indices was the sum of all SSU in all solvers present in the same example. This sum expressed the 100 % solution achieved in the given group.

The activity index in solving the first working problem of the first subject was equal to the ratio between the number of solution (i.e., the number of SSU) of the first person of the first example and the sum of the number of cognitive nuclei of all present solvers of the group.

In interpreting the effect of ASPL it is also necessary to take into consideration the structure of the selected examples, their complexity, the degree of difficulty of their solution, the social and psychological structure of the group of solvers, its size, mutual relations among the solvers, their motivation, expressing abilities, practical experience in managing work, the presence of disturbing factors, etc. These factors are subject to a systematic research; a part of the results is published in this monographic study.

Besides the sum of the sign significant units (SSU) for 11 examples solved in each solver, further the sum (roush score) of indices, i. e. the share of each solver in the results of the whole group of solvers for 11 examples the slopes (regression coefficients) of linear equations calculated from the time series of the SSU and time series of indices of SSU were used for evaluating the effectivity.

In each solver group also the trend of the time length of solving the examples and the trend of the number of participations of the solvers in the discussions in the 11 examples were also taken into consideration and evaluated. In the qualitative evaluation of ASPL effectivity the sign significant units were further classified by means of the method of graded categorization and the frequency variation of each category of solution in the group was established.

Active social programme learning (ASPL) is characterized by the following specific features:

1. Active social programme learning (ASPL) belongs into the group of methods of heuristic character. It is therefore included among problem methods, as it evokes — like all types of problem methods — the acquirement of new information, new knowledge, the utilization of thinking processes,. the seeking of optimum or quite new ways of solving problem situation in life, school or work, the finding of relations unknown before, the learning of the essence of phenomena. In this sense ASPL continues heuristic methods, problem teaching, being organically included among them, since it has a number of common characters with them.

2. ASPL differs from problem teaching in that the problem methods were used for the most part at schools as teaching methods, being analyzed mainly in didactic literature and concerning closely the cooperation of the teacher and the pupil, i.e., different forms of teaching lessons, both classical or laboratories, excursions or individual studies. ASPL goes beyond the scope of teaching and is understood as one of the means of education lasting for the whole life. It is used not only at schools and in further education of managers, but also in the ideological and political sphere, in young people as well as in adults.

3. For ASPL the specific sphere is the solution of present, only critical, actual, contradictory, conflict problem situations. Situations of this type were chosen and applied intentionally for several reasons: a) contradictions and their solutions belong among the important moving forces of the development of the individual, groups, teams, and the whole society, b) many contradictions have a specific form under the conditions of socialist society, c) some of them belong to anachronisms in the conscience of people and as such they must be actively overcome, d) they are an important component of social contact, e) they signify a close connection of theory and practice, f) they contain a strong motivating element, concerning each individual solver.

4. ASPL provides the solver not by complete ways of how to solve problem situations, but by individual elements of such a solution, i.e., operations, partial social skills. The solver, first in the group of solvers and then at his workplace, chooses the optimum elements for solving an actual problem, and by their connection, combination and variation creates the respective plan, programme of activity and the strategy of solution.

The paper describes and interprets changes in the dynamics of the solver groups

as well as the processual aspect of ASPL, both from the quantitative and from the qualitative point of view.

Based on a detailed analysis of the data obtained the following were constructed:

1. general model of relation cycles (1977), in which the solution of each individual próblem is considered to be one relation cycle consisting of three fundamental stages (information, preparatory and discussions stages, the discussion solution forming the subsequent relations and feedbacks;
2. six global and six detailed deterministic models (1978, 1981), in which the possibility of a zero, ungraded and fixed as well as a differently graded loss of information and the effect of this differents loss of information during the solution of problem situations on the final effect. Whereas in the global models a problem is calculated as a unit, in detailed models it is the sign significant unit (SSU) which is taken into consideration as a unit;
3. a stochastic model on the basis of information currents (1980), in which the basic input data were extended by personality variables that denote the ability of the individual of solving in a group the problem situation based on a certain set of properties;
4. a specialized information stochastic ASPL model (1980, 1982, 1983). The model includes the conditions and a generalization of relations which proved to be serious in the analysis of the determinants of ASPL. The model consists of five blocks and starts from Linhart's functional system of activity. The in put is the stimulation (S) expressing the relation of the solver to ASPL; ASPL parameters and personality variables belonging to it as well as the procession of the information obtained on the basis of the subject's own previous experience. Block A (receptor) denotes the confrontation of the stimulation impulses with the feedbacks from the common working objective, the evaluation of the stimulation, the influence of the other solvers expressed by feedbacks. The block of central integration (CI) means another comparison and integration, includes the sub-block of plans of activity and programmes of activity, application of the algorithms of solution, attitudes and the motivation of solvers, their system of values, a combination of the evaluated impulses from receptor A and the evaluated application of algorithms of solution. The block of motivation was amalgamated with the block of plans of activity. Information about the results of central integration and plans of activity enter the system from block O. The answers are influenced by the results of the comparison of the ways of solution with the intentions of the solver. The consent causes the generation of answers into the common working subject, the disapproval provokes the application of another algorithm of solution. The block of the common working subject (CWS) includes the relations among the solvers, the means of input and output, the contact with the answers of other solvers, etc. The model does not solve the problem of the selection of the unit of information, the mathematical expression of the code properties (human speech) of the information transferred, the difficulty of the tasks solved and the extent of the model validity.
5. a five stage and a six stage ASPL models (1969, 1978).

Besides the above models, a result of analyses was the hypothesis about the facilitating effect of personality properties which originate and develop in contact with people, in controlling them and in organizing the process of management. Finally, some of the specific factors were investigated that intervene in the changes of social attitudes, views and evaluations, and a hypothesis was pronounced about a selective acquisition and fixation of social experience on the basis of the solution of contradictions.

The monograph does not solve the problems of active social programme learning (ASPL) in the full scope, but only selected problems of this social multifactorially conditioned phenomenon. In this spere a number of new items of information were collected, many theoretical carrier starting points were formulated, initial categories were delimitated together with fundamental concepts and a number of research actions in the field were carried out. The chief assumptions were created for practical applications within abroad scale of our Czechoslovak project of education lasting the whole life. For years an intense development of education lasting the whole life has been going on in this country. In propaganda work and in the process of education activating methods are used exceptionally, in practice classical forms of lecturing prevail, discussions after lectures usually have little active character. Activating methods are known, but in practive they are used quite sporadically, because they require much longer and more specialized preparation than a lecture carried out in the classical way. A lecture belonged to the first, least effective action. The Harward case method is more effective, economic games take up the third place, brainstorming is fourth,

the Gordon and Pigors methods are still more effective than the preceding activation methods. The group solution of the problem and economic games with heuristic solution belong to the most effective activating methods. These ways of course require the employment of motivating influencing of the participants (students). They have been elaborated to such extent — particularly the method of active social learning — as to be able to apply in practice. The results of our experiments have shown that their use is effective. It will be necessary to continue the study of ASPL determinants and gou on looking for still more accurate ways of evaluating effectivity.