

The primary objective of the author is to develop a measuring instrument of this kind; his further intention is to examine the process of teaching languages in its relation to the whole of the personality and, in connection with this, to create a suitable system of guidance. In the present comprehensive study on the research methods applied by him so far, he sets forth his experiments conducted with middle-school pupils and university students.

Theoretically, the experiments were started from the realization that, also in the learning of languages, external effects are being manifested through internal factors. Consequently, the efficiency of learning languages depends for the most part (and, in case of identical influencing, almost entirely) on the motivating sphere of the pupil's personality and on the stage of development of his abilities. The actual developmental level of these psychic factors is formed in the course of the earlier activity, of an interaction with the environment. However, on the one hand, the wide limits of the possibilities are set by the natural faculties, on the other hand, it is the actual state of the abilities and motivating factors that determine the efficiency of further activity, of development.

As to the practical side of the question, when designing the test, the basic point of departure was the intention to examine the activities directed at learning languages and the abilities being in interaction with these, as well as the structure of the language in question. Since research of this kind can be considered a novel initiation in Hungary, the author strove to present and make use of the most important, yet similarly but initial results achieved by foreign research, in the first place the many-sided examination method of the Harvard University.

Naturally, under Hungarian conditions, owing both to theoretical and, taking the linguistic character of the problem into consideration, to practical respects, investigations had to be started on a new basis. The experiment yielded positive results as regards preliminary acquisition of information important in the instruction process, and can serve as a basis for further research.

Zoltán Pálffy

THE DEVELOPMENT OF THE "TECHNICAL" CONTENT OF STEREOSCOPIC VISION

Founded on original surveys, the author examines the development of perception of form and space of "technical" character in 7—15 years old children, as well as of their ability to represent, combine and construct. He has determined and described the following phases of ontogenesis:

Phase 0 (zero) (6—7 years of age): The examined person draws one or two characteristic views (sides, surfaces) of the simple regular objects, without combining the views.

Phase 1 (7—10 years of age): Begins the combination of the views, of the adjoining elements of the simple regular objects in the drawings, i. e., a (primitive) drawn transposition of the three dimensions.

Phase 2 (7—11 years of age): The image of the adjoining elements of angular solids are combined roughly corresponding to the real joinings — without a consistent representation of the parallels tending toward the depth of space as such.

Phase 3 (7—14 years of age): The examined persons represent the parallel edges of regular solids roughly corresponding to the direction of their extension in the third dimension — without a consistent regard to linear perspective.

Phase 4 (10—14 years of age): The examined person transposes, with more or less success, the optical picture of angular solids exposed in nature, into co-ordinated Monge's projections and, taking into account the structural connections in space, transposes pictures of solids of rotation truncated (e. g. cut in two) in the projections, into the drawing.

Phase 5 (11—15 years of age): The examined person transposes the imaginary picture of the real object (e. g. of cylinders) freely transformed (e. g. truncated), with more or less success into an (axonometric or perspective) drawing and Monge's projections. However, from among the freely variable positions in space of the circular surface, he correctly draws but the projections of those parallel with and/or perpendicular to the plane of projection.

Phase 6 (11—15 years of age): In his sketches drawn from nature, the examined person represents the view more or less adequately complying with the structural connections and pictorial representation (light, shadow, tone, etc.). He successfully transposes the oblique spatial positions to Monge's projections and perspective drawing.

Founded on the results of the examination, the author makes several suggestions for the introduction of procedures and methods suitable to increase the effectivity of learning and teaching, as well as the independent activity of the pupils, further for completing the curriculum and for further experimental work.