

PSYCHOLOGY

Chairman: AMMON SWOPE, Purdue University

The section on psychology was well attended, and most of the papers read were followed by general discussion. Some of the papers had marked vocational or industrial implications.

R. A. Acher, of Indiana State Teachers College, was elected chairman of the section for 1940.

ABSTRACTS

The civil aeronautics authority flight training program—psychological problems. AMMON SWOPE, Purdue University.—Preliminary to the investigation, letters were sent to 30 schools engaged in training pilots for aviation service. Reports of these institutions showed that no consistent scheme of selecting pilots was followed. Some of the common forms of selection placed emphasis on mathematics, physics, English, or high school graduation. In many cases high school graduation is not required. After a critical study of various articles, it was found that psychological problems could be organized under such headings as acceleration, altitude, aptitude, occupations, orientation, sickness, and vision. It is impossible to give any single conclusion to the series as here presented, but many of the findings in our laboratories might be adapted to the selection of pilots.

An experimental study of changing patterns of response during conditioning of dogs. IRVIN S. WOLF, Indiana University.—Six mongrel dogs were trained by the buzz-shock technique with shock delivered only to the right rear limb. Simultaneous recordings were made of the movements of all four limbs and of breathing throughout a training series involving 400 stimulations. Conditioned behavior was found to be diffuse and qualitatively different responses were observed for the various animals and for the same animal at different stages of training. Abrupt changes in systematic behavior resembling Krechevsky's "hypothesis behavior" were indicated. Curves describing both the acquisition of the right rear limb flexion and the elimination of less adaptive behavior in other members suggest both the usual increasing conditioning curve and the decreasing trial-and-error curve for conditioned behavior recorded simultaneously. Two general methods of development of the adaptive response were found. Some animals gradually built up the coordination between the right foot response and the conditioned stimulus. Others developed conditioned struggle and later eliminated the responses in the non-shocked members.

A study of teachers' and pupils' attitudes. HARRY MASON, Purdue University.—Social attitudes of over 900 pupils in social studies courses in Arsenal Technical High School in Indianapolis, as well as those of

their teachers, were measured at the beginning and end of a semester's work. Relationships found between attitudes and factors concerning the school and out-of-school environments of pupils were studied for their possible significance to the teaching of the social subjects as well as for their theoretical interest.

Some recent applications of psychology in industry. JOSEPH TIFFIN, Purdue University.—This paper is a summary of recent research in industrial psychology concerning selection tests, job analysis by psychological tests, and possibilities for training. The validation of selection tests for assembly work and inspection work in specific plants is evaluated with a description of the tests finally adopted by a number of representative industries for use in actual employment. Possibilities of job analysis by test is illustrated by means of specific experimental results from the steel industries. These results show how employees may be measured by means of testing situations which determine their efficiency on various aspects of the job. The use of the above results in a training program designed to develop efficiency in new employees in the most economical manner is presented.

The effect of physical performance on the eyes. LYLE TUSSING, Purdue University.—The study shows the effect of fatigue on various eye functions. Male subjects were used. Fatigue had been administered in several different ways. Changes in fatigue are subjectively recorded on a seven-point scale. The eye tests were given before and after submitting the subject to the fatigue situation. The eyes are affected by fatigue even though the fatigue is of such nature as not to call for eye strain of itself.

A preliminary study of information in the field of home economics education held by students in entering the home economics departments of colleges in Indiana. ALMA LONG, Purdue University.—This is part of an extended program planned for the study of curriculum materials and some results of teaching in the field of home economics education at the high school level. The results of a test which was given to students entering the home economics departments of colleges in Indiana have been analyzed to test the usefulness of such an instrument in determining the kind and extent of specific information acquired previous to college entrance, to suggest the relationship such bodies of knowledge may have to the curriculum in home economics offered at the high school and first year college levels, and to suggest areas in which further research might be needed. Questions were raised also concerning college training which takes into account differences in the proficiency of students and the high school and college teaching which produces maximal individual development.

The relationship between marital compatibility and personality traits of husbands and wives as rated by self and spouse. E. LOWELL KELLY, Purdue University.—Seventy-six husbands and their wives were each asked to compare themselves on 36 personality traits. For example, a husband was asked to rate both himself and his wife on such traits as honesty, cooperativeness, sincerity, punctuality, and initiative; she was

asked to rate both herself and her husband on the same traits. All returns were anonymous. Each husband and wife also filled out a set of questions which were scored to yield a measure of the degree of marital happiness achieved by the couple. In general, happily married husbands and wives tend to rate their own personalities above average but rate their spouses even higher. Conversely, couples with low compatibility scores tend to think less well of themselves and rate themselves as superior to their spouses.

The readmitted student. M. L. FISHER, Purdue University.—Every year a considerable number of students are dropped from University rolls by reason of poor scholastic performance. Studies were made of the students dropped during scholastic years and summer sessions of 1931-32, 32-33, 33-34, 34-35, 35-36, involving a few over 1,100 students. Data were tabulated and analyzed. In round numbers 22% of those dropped and readmitted were later graduated and 7.5% were still in school in Purdue University. No information is given concerning those who may have gone to other institutions and graduated.