

Xerox Measures Student Interest

An automatic device that can tell how engrossed students are in a lesson may soon become a reality, according to recent claims by Xerox Corporation scientists.

The Xerox researchers are trying to find out how to make people anxious to learn—by discovering which things about a classroom situation, a book, or an automatic teaching device either

attract or repel a student. To do this accurately, they want to develop ways to measure this attraction—repulsion factor with scientific precision.

Recent experiments lead them to believe that certain simple changes in the human body may supply the kind of measurable indicators they seek.

For example, they have verified that when something you see interests you,



Measuring Reactions. Experiment subject shown above looks at projected pictures and pushes coded buttons to record her reactions. These reactions are then compared with a record of her pulse rate and pictures of her eyes, made by the camera in right foreground.

your pulse quickens, and the pupils of your eyes widen.

On the other hand, when you see something that strikes you as dull, your pulse slows down, and your pupils—after first increasing in size—tend to close sharply.

Women Volunteers

The researchers, Dr. Bruce Bergum and Donald J. Lehr, worked with 10 women volunteer subjects, most of them wives of Xerox people. In the test situation, the ladies each peered into a black box containing a screen, on which a variety of pictures were projected.

They indicated whether they thought a picture was interesting or uninteresting by pushing a series of coded keys. At the same time, a movie camera photographed each woman's

eyes, and other reactions were picked up by sensing devices similar to those worn by astronauts.

Recordings of both their conscious feelings and their involuntary reactions were later compared.

According to Dr. Bergum, his and Mr. Lehr's findings may pave the way for the development of an attraction-repulsion gage. The next possible step, he suggests, would be to develop learning units in which lighting, color scheme, and even the instructional material itself can be varied during a lesson to suit the student.

If an interest-measurement instrument were hooked into such a learning unit, Dr. Bergum concluded, it could adjust automatically to the student's reactions even before he himself was fully aware of them, and keep him fruitfully absorbing knowledge.

TRAINING PROCEDURE.



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