

# Curriculum Research

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## Learning and the Learner

**T**HE PURPOSE of the present article, in harmony with the current series for this column, is to examine the implications of some of the ideas brought forth by research in the field of psychology of learning. It is not intended to be a review of research but rather an interpretation of ideas that may have a bearing upon classroom practice and curriculum research.

### Implications for Classroom Practice

The psychological laboratory continues to accumulate data relative to rewards and punishment as these affect the learner and the process of learning. Some of these have implications for what we might do with the learner in the classroom that is different from ordinary practice. For example, the latent learning experiments tend to contradict the Thorndike theory of learning, especially the law of effect, which assumes that reward and/or reinforcement are necessary conditions for learning to take place. It seems as though animals do learn even when it is not immediately evident in their performance, and they seem to learn whether they are rewarded or not. Much of the research in human learning has centered around testing the law of effect, especially the relationship between learning and reward, reinforcement, or need reduction. The latent learning experiments strongly suggest that rewards, incentives, and motivations in learning might not be as crucially im-

portant in the learning process as has been assumed. Many questions relative to this problem need to be attacked at the human level. For example, research data need to be obtained to find out whether grades are need-reducing. If they are necessary for certain types of performance, what are these types? When does the teacher need to motivate and reward actively, and when does he need to leave the student alone? The whole problem of motivation and reward as it applies to human learning needs to be examined in detail through adequately controlled and properly executed research.

Several interesting observations are being made relative to the effect of punishment. Much research has been done on the relationship between learning and rewards, but not nearly enough has been done relative to learning and punishment. For example, the idea that behavior really is not eliminated until it is brought to free expression where it can be redirected is a contradiction of the idea that punishment can eliminate undesirable behavior. Sometimes punishment can do more damage than good by causing the organism to repress behavior rather than express it for purposes of redirection. Furthermore, for some persons punishment is a reward as in the case of the child being punished for aggressive behavior and who accepts the punishment as a reward because it attracts attention to him. Interestingly enough

the experimental literature on the effects of punishment in human learning is almost nonexistent. The ethical problems in doing research of this type are very apparent. However, some attack needs to be made on the problem, if only for the reason that our society accepts punishment as one way of rehabilitating certain deviant individuals in our society. The rehabilitation process is successful only in terms of the amount of relearning involved. Perhaps punishment can be successfully used in certain instances. Witness the apparent success with which alcoholism has been treated by use of a drug that causes a violent nausea when reacting with alcohol. Every time a patient who has taken the drug is exposed to alcohol he becomes quite sick. This type of punishment certainly causes the patient to avoid the pain-producing stimulus. This "negative" type of avoidance learning might be investigated as one possibility for teaching certain types of "control" behaviors in the school system.

Some of the research being conducted by H. F. Harlow of the University of Wisconsin with primates is generating ideas that merit consideration in human learning. For example, one idea is that curiosity may be classified and treated as an instinct. We have assumed for some time that curiosity was an almost native characteristic of children, but we have not established by our observations of children the precise nature of the curiosity in patterns or levels at different ages. The classroom could be an almost perfect observational laboratory to collect data for this type of study. Harlow and his associates also have been examining patterns of discrimination learning in primates in an endeavor to identify levels of discrimination in accordance with age and experience of his subjects. Many

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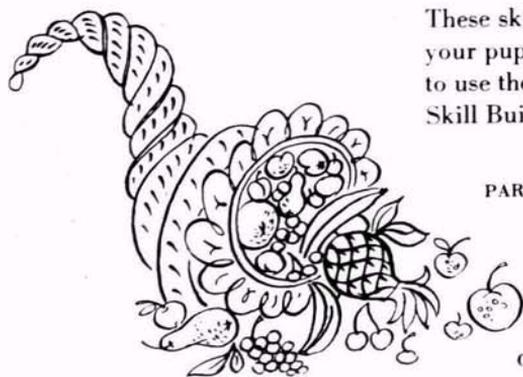
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questions are being raised relative to the learner and his past experience in dealing with discrimination learning. This again is a kind of research that has not been systematically applied to human beings in the school environment.

### Content and Organization of the Curriculum

Another group of ideas that continue to be examined in the psychological laboratory have implications for research on the content and organization of the school curriculum. As one example, controversy exists between continuity and non-continuity theories of discrimination learning. Continuity theory attempts to account for present learning in terms of past associative learnings. Non-continuity theory tends to accentuate breaks in learning as the learner shifts from one mode of behavior to another. While both theoretical approaches accept the role of

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prior experience in learning, the non-continuity theorists tend to de-emphasize prior experience. Many problems relative to human learning emerge from these theoretical distinctions. What is the relationship between past experience and present performance? Do human beings learn to discriminate randomly in a trial and error or associationistic fashion, or do they tend to make hypotheses as the learning process unfolds? If the non-continuity theory holds true for humans, then past experience should not be as important a variable in learning as certain theorists would have us believe. Perhaps a set of basic experiences would be all the past involvement necessary for the determination of insight and hypothesis testing in learning. If learning is too directed, the learner learns to depend on that direction. A person not only learns a performance; he learns a way of learning a performance. Perhaps the

orientation of our school systems around a theory of learning which emphasizes rewards and the continuity of past experience is a result of the fact that we teach students to learn in a dependent manner, that is, dependent upon the reward and guidance of the teacher. This problem, of course, is intimately associated with the problem of learning to learn. It is apparent that the implications of this controversy for the content of the school curriculum, especially one that is organized in a logical and sequential manner, are very great.

Another very interesting idea is discussed as the Zeigarnik Effect. Research has shown that tasks which are interrupted are remembered more readily than tasks which are brought to completion. Completing the "Gestalt" or seeking closure at the end of a learning situation may not be desirable if the learning process is to continue, say on the next

day or during the forthcoming week. If this is true, perhaps we are in error in culminating our learning activities in the classroom too often and too completely. Perhaps motivation for continuation of learning may be arrested because of concluding practices in classrooms.

We have already mentioned some of the ideas that are being examined in relationship to discrimination learning and patterns of curiosity. Some of the research indicates that when discrimination learning is forced upon the learner too early and in overly complex patterns the learner's curiosity tends to be dulled. This has dynamic implications for what we might do, particularly in elementary schools. If, for example, in the field of arithmetic we tend to present children with discrimination patterns that are too complex and abstract for them too early, we may seriously dull their curiosity for the study of arithmetic. The same could

be said of a number of subjects. This is one area that needs serious consideration in research in human learning and curriculum.

Finally, research continues to accumulate data providing us with further information about individual differences. Some of the challenging work that is being done with culture free intelligence tests in examining some of our previous conclusions about intelligence among races and socioeconomic classes may have tremendous impact upon the school curriculum. If we can accept the notion that the school curriculum is an agency of cultural transmission, then it behooves us to become aware of variations in cultural deficiency that affect the performance of individuals who attend our schools.

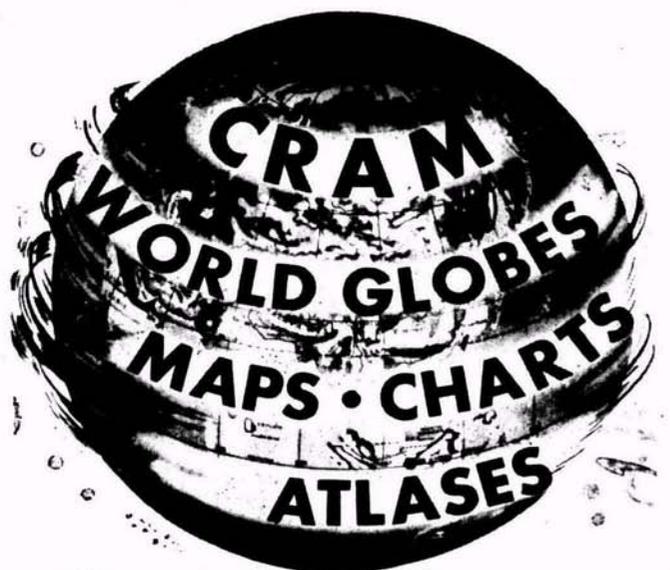
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