## DOCUMENT RESUME

ED 047 221

AC 008 959

AUTHOR TITLE

Farmer, James A., Jr.; Dravecky, Evelyn The "Turned On" Teacher and Bayond: Education as a

Socio-Technical System.

PUB DATE NOTE

7p.; Paper presented at the Adult Education Research

Conference, New York City, February 2-5, 1971

EDRS PRICE DESCRIPTORS IDRS Price MF-\$0.65 HC-\$3.29

Instructional Technology, Learning, Research, \*Student Teacher Relationship, \*Systems Analysis, \*Teacher Characteristics, \*Teacher Qualifications,

\*Teacher Role

#### ABSTRACT

As used in education, the term "terned on" teacher means a teacher who is "with it" in being emotionally, intellectually and existentially involved with: (1) the subject matter being taught; (2) the contemporary scene; and (3) what is relevant for students. Samples of administrators and teachers interviewed stressed personal characteristics and interpersonal abilities as being of primary importance for the "turned on teacher." Of striking note was the emphasis on the underlying concept of empathy as a crucial characteristic. As described by the sample, the excitement which is within and which is generated by a "turned on" teacher is not to be confused with the excitement which might be fabricated by new instructional technology. A theoretical framework for conceptualizing and interrelating "turned on" teaching and technological advances in education may be available in what is called socio-technical systems analysis. (DM)



# o ∪ o ≺FRIC

# THE "TURNED ON" TEACHER AND BEYOND:

U.S. DEPARTMENT OF HEALTH, EDUCATION

A WELFARE
OFFICE OF EDUCATION

TH.S. DOCUMENT HAS BEEN REPRODUCED
EXACTLY AS RELEVED FROM THE FERSON OR
OPGANIZATION OPIGINATING IT POINTS OF
VIEW OR OPINIONS STATED DO NOT NECES
SAILLY REPRESENT OFFICIAL OFFICE OF EDU
CATION POSITION OR POLICY

#### EDUCATION AS A SOCIO-TECHNICAL SYSTEM

James A. Farmer, Jr. and Evelyn Dravecky

The term "turned on" seems now to have become part of educational semantics. The term is not only being used at the classroom level, but also by educators at the state and federal levels. Following a recent trip to Washington, D. C., one state educational administrator reported that high priority is currently being placed in educational circles on how to select and train the "turned on teacher."

Further, the term "turned on" is being used to describe a type of educational experience, a "turned on teaching-learning transaction."

A group of educators and personnel from business and industry in Los Angeles were asked by the authors to observe a variety of classroom experiences and to note particularly whether or not in their estimation what they observed was "turned on education." One report concluded:

"In my opinion, this math class was the antithesis of a 'turned on' teaching-learning experience. There was no enthusiasm for the acquisition of the material and a dread of math seemed to be present. The instructor was obviously disappointed with the results of the class."

The observer of another class was more favorably impressed and summarized his report as follows:

"I would not describe this session as a 'turned on' educational experience of the highest magnitude. It was somewhat 'turned on.' The teacher was enthusiastic enough to show involvement, but was not so overzealous as to be disruptive. There was class interaction and some evidence of the assimilation of subject matter."

What is meant by the term "turned on" as it is being used in the above reports and to describe education in general? The term itself seems to be a socially manufactured colloquialism. For some time,

"turned on." Clearly, its use in educational circles is divorced from direct reference to the effects of drug usage. Within the semantics of education, the use of the term is more akin to its use by teenagers and young adults, referring to "getting with it," "being excited," and becoming exis intially involved and relevant. Thus, the "turned on" teacher is "with it" in being emotionally, intellectually and existentially involved with: (1) the subject matter being taught; (2) the contemporary scene; and (3) what is relevant for the students.

## Usage by Administrators and Teachers

To probe deeper into the usage of "turned on" in education, 45 educational administrators and 52 classroom teachers in five Western states were asked to describe what they meant when they used the term "turned on teacher." A list of the underlying concepts, identified by the administrators as being most frequently incorporated in their use of the cerm is presented in rank order in Table I. A similar list of usage by teachers appears in Table II.

TABLE I

	G CONCEPTS IN RANK ORDER OF THE TERM N TFACHER' AS USED BY ADMINISTRATORS (N-45)		G CONCEPTS IN RANK ORDER OF THE TERM N TEACHER" AS USED BY TEACHERS (N-52)		
Rank	Underlying	Rank	Underlying		
<u>Order</u>	Concepts	Order	Concepts		
(1)	Empathic	(1)	Accepting of students		
(2)	(2) Knows goals and aspirations of stu-		Caring		
	dents	(3)	Warm		
(3)	Dedicated	(4)	Flaxible		
(4)	Humbla	(5)	Sensitive		
(5)	Patient	(6)	Lnthueiestic		
(6)	Innovative	(7)	Has integrity		
(7)	Creative	(8)	Motivated		
(8)	Charismatic	(9)	Ability to motivata		
(9)	Good previous work experience	(10)	Ability to change and to be changed		
(10)	Communication and listening skills				
(1.11)	Positive attitude				

Knowledge of many techniques to

The administrators and the teachers were interviewed concerning these underlying concepts. Both stressed personal characteristics and interpersonal abilities as being of primary importance for the "turned on teacher."

Administrators and teachers alike made it clear that, as they viewed it, the "turned on teacher" is not the same as the "good teacher." Traditio....lly, a "good" teacher has been thought of as one who can teach a particular subject matter, maintain discipline, be socialized easily into a hierarchically arranged educational system, and who has been inculcated with the esteemed quality of being "objective." The traditional "good teacher" is safe because he or she stays out of trouble, knows the techniques, has the right credentials, plays the game, and has the right career line (administrator for men; stays in the classroom for women). Educators interviewed indicated that, as they saw it, the "turned on" teacher, in contrast to the "good" teacher, is more adequately able to combine interpersonal abilities with enthusiasm to facilitate a "turned on teaching-learning" experience.

Of striking note was the emphasis placed by the administrators on the underlying concept of empathy as a crucial characteristic of the "turned on" teacher. When asked to explain what they meant by empathy in this context and why they saw it as so important in teachers, one group of administrators responded that what they as administrators are cooking for in the "empathic teacher" is one who has cross-cultural sophistication, sensitivity, emotional stability, and good human relations. Others interviewed, however, while recognizing the importance of empathy, were cautious and at times negative about stressing empathy per se in the teacher. To be sure, they saw that a teacher needs to be



empathic as opposed to being cold and insensitive. But, at the same time, they said that being too maintenance-oriented or too empath may not be functional. Too often the empathic teacher "mothers" students and ignores needed cognitive change in them.

As described by both administrators and teachers, the excitement which is within and which is generated by a "turned on" teacher is not to be confused with the "excitement" which might be fabricated by the use of educational techniques, methodologies or media used separately or together. Those interviewed indicated that, as valuable as these teaching tools can be in the classroom setting, in and of themselves they cannot create a "turned on" teaching-learning transaction nor replace what is provided by a "turned on" teacher.

When asked why, in their estimation, emphasis was currently being placed on the "turned on teacher," both administrators and teachers stated: "To counterbalance the technological gains in the field."

# Technological Advances in Education

During the past few years the teacher has been confronted with an impressive and imposing array of technological innovations ranging from Planning, Programming, Budgeting Systems (PPBS) to programmed instruction and computerized instruction. With these new technologies, the teacher becomes the guider of tools and needs skill in running tape recorders, overhead projectors, film strip and slide projectors, thermofax machines, movie projectors, and, with the assistance of technicians, videotape recorders and projectors. Teachers need to function within individual programmed instruction systems and with a variety of group processes, all within specified objectives. Table I presents a "Taxonomy: Grid for Teaching-Learning Strategies" which



provides a way of conceptualizing teaching-learning strategies in terms of the interrelationship between methods and media within specified objectives. Such strategies can improve education only if they are utilized by teachers who are equipped to use them and who can facilitate making the educational processes they are designed to serve come to life. If they "turn off" teachers, and in turn, the students, they are more than a waste.

One step further, looming on the horizon is the requirement for teachers to be able to run or complete with computerized instruction. Teachers interviewed spoke of increasing fear of these new innovations. While admitting that part of their fear had to do with anxiety about potentially losing their jobs, some teachers indicated that they felt that accelerated technology, coupled with greater emphasis on the role of the "turned on teacher," could soon reach a point of diminishing returns for education. As an indication that this point may already have been reached, some told of "turned on" teachers who have been "burned out" or "turned off" while trying to teach within technological systems which had been designed to increase efficiency.

Little nostalgia was found on the part of either the administrators or the teachers interviewed for "pre-technological" or less than "turned on" forms of teaching. At the same time, those interviewed indicated that they did not know how to adequately combine both the socio and the technical aspects of education.

# Education as a Socio-technical System

A theoretical framework for conceptualizing and interrelating "turned on" teaching and technological advances in education may now be available in what is called socio-technical systems analysis.



Louis Davis refers to the field of socio-technical systems analysis as

"...a newly developed theoretical framework which provides a setting for understanding the requirements for job restructuring. In terms of current development and practice, these ideas are not yet well known. The concepts were first sketched out nearly twenty years ago in Britain, and Morway has recently employed them as the substructure for a comprehensive program of labor-management relations. But the (concepts) have not yet come into common or even uncommon practice in the United States.... (From the point of view of this form of analysis), work is to be done, and when human beings are required actors in the performance of this work, then the desired output is achieved through the actions of a social system as well as a technological system. Further, these systems so interlock that the achievement of the output becomes a function of the appropriate joint operation in both systems. The operative word is 'join't,' for it is here that the socio-technical idea departs from more widely held views -- those in which the social system is thought to be dependent on the technical system." [Davis, Louis E. "Transiting the Unprepared into Productive Society, (unpublished paper) Graduate School of Business. UCLA, June 10, 1969, p. 3.

Spelling out the nature of socio-technical systems analysis and its implications for education go beyond the scope of this paper. But it seems to the authors that closer acquaintance with the nature of this type of analysis and the initiation of attempts to utilize it in education in the near future could provide a way of moving beyond difficulties in education caused by dealing with socio and technical systems as if they were basically independent of each other.

According to the 1970 Manpower Report of the President, manpower projections indicate a slackening in the need for more and more teachers during the next ten years. Perhaps some of the utilities which have gone into meeting the domands for quantities of teachers up to this point can be redirected toward improving the quality of not only the teachers, but also of the educational, socio-technical system itself.



J. Farmer, UCLA 1970

#### TABLE I

#### TAXONOMY: GRID FOR TEACHING-LEARNING STRATEGIES

Once educational objectives have been identified and specified by the teacher and the learners, they can be related to both methods and media in terms of teaching-learning strategies which are appropriate to the structure of the knowledge under consideration. The following grid has been developed to facilitate this process. Teaching-learning strategies can be charted on the grid by identifying each unit in the strategy by number (i.e., "I," "II," etc.). These numbers can then be connected by arrows to indicate progression of anticipated teaching-learning experiences in the strategy planned. Evaluation of particular strategies can be in terms of both cognitive and affective effectiveness, in terms of their inductive or deductive contribution to the teaching-learning process, and in terms of contribution to a "turned on" or "turned off" teaching-learning experience.

METHOD										
	Lecture Film Reading Recitals	Forum	Symposium Panel or Debate	Discussion	Project, Field trip Exhibit	Buzz Group	Group Intervie			
					$\times$	X	$\times$			
16 mm projector										
Film strip or slides projector										
Tape recorder										
Overhead projector					ERIC	Clearingho	use			
Thermo- fax copier						ਹ <b>⊥</b> € 1971				
Video tapa re- corder					on Ad	uit Educat	on			

