

Organizing Schools for Productive Learning

Shlomo Sharan • Ivy Geok Chin Tan

Organizing Schools for Productive Learning

 Springer

Shlomo Sharan
Tel Aviv University
Tel Aviv, Israel

Ivy Geok Chin Tan
National Institute of Education
Nanyang Technological University
Singapore

ISBN 978-1-4020-8394-5

e-ISBN 978-1-4020-8395-2

Library of Congress Control Number: 2008928845

© 2008 Springer Science + Business Media B.V.

No part of this work may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission from the Publisher, with the exception of any material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work.

Printed on acid-free paper

9 8 7 6 5 4 3 2 1

springer.com

*For Seymour Sarason:
Whose unparalleled wisdom about schools and
schooling is always sobering and inspiring.*

Contents

About the Authors	xi
List of Tables	xiii
List of Figures	xv
The Purpose of This Book	1
Introduction	3
Students Are Bored in School	4
Why the Boredom?.....	5
The Road to Productive Learning in School.....	6
1 Two Models of School Structure	9
Structural Change: Necessary but Not Sufficient	9
Organizational Regularities in School	10
The One-by-One Formula.....	10
The “One-by-One” Formula and the Hierarchical Nature of Bureaucracy	11
A Hard-Nosed View of the One-by-One Concept.....	13
The Greater-Than-One Formula.....	14
A Policy of Instructional Coherence	15
The Discipline-Oriented Organization of Schools	19
Human Organization Is Contrived.....	22
What Structure Cannot Do for Teachers.....	24
School Organization and Teaching Practices: A Summary of Our Goals	26
2 The School as a Community; The School in the Community	27
Part 1: The School as a Community	27
School Organization and Community	28
Communities and Other Enterprises.....	30

The Goals of the School as a Community	32
Community and Academic Disciplines	34
Qualities of Leadership.....	35
Part 2: The School in the Community	36
The Community as a Site for Learning	36
3 Student Engagement in Learning.....	41
A Cognitive-Affective Concept.....	41
Engagement and the Learning Environment	42
Engagement and Students’ Conceptions of Learning.....	43
Meaning and Student Autonomy.....	44
4 Class Size and School Size.....	47
What Is a Large Class?	47
Teaching Methods Omitted from Studies of Class Size.....	49
Does Class Size Inhibit Innovation?.....	52
School Size	53
5 The Integrated Curriculum	57
The Fusion of Academic Disciplines	57
The Problem of Relevance.....	58
The Problem of Integration.....	61
6 Duration of Class Sessions and the Problem of Teaching Method	67
The Anticipated Demise of the 50-Minute Hour.....	68
Alternative Teaching Methods and the 50-Minute Hour.....	69
More Alternative Schedules	70
Extensive and Intensive Study Projects.....	71
How Schedule Reform Affects Teaching: Some Research	72
Teachers’ Evaluations.....	73
Results Regarding Students.....	74
Some Conclusions	75
7 Student Assessment.....	77
Assessment as Testing	77
Alternative Assessment	78
Summative and Formative Assessment.....	80
More Alternative Approaches to Assessment.....	82

8 A Systems Approach to Organization and Instruction in Schools.....	85
Systems Integrate, Bureaucracies Separate	85
A System Is Not a Collection	86
Classrooms as Social Systems.....	88
Can Schools Adopt New Principles of Organization?.....	90
References.....	91
Author Index.....	97
Subject Index.....	101

About the Authors

Shlomo Sharan is Professor Emeritus of Educational Psychology, School of Education, Tel-Aviv University, Israel. He has published numerous articles and studies in research journals, and has edited and written (with colleagues) 16 books, including *Cooperative Learning: Theory and Research* (1990, Praeger/Greenwood, Westport, CT), *Expanding Cooperative Learning Through Group Investigation* (1992, Teachers College Press, New York; with Yael Sharan), *The Innovative School: Organization and Instruction* (1999; Greenwood Publishers, Westport, CT; with Hanna Shachar and Tamar Levine), and *Group Investigation and Student Learning* (2006, Marshall Cavendish, Singapore; with Ivy Geok Chin Tan and Christine Kim Eng Lee). Professor Sharan was one of the founders of the International Association for the Study of Cooperation in Education (1979).

Ivy Geok Chin Tan is an Assistant Professor of the Humanities and Social Studies Education Academic Group, National Institute of Education, Nanyang Technological University, Singapore. She has published several articles in research journals and coauthored a book *Group Investigation and Student Learning: An Experiment in Singapore Schools* (2006, Marshall Cavendish, Singapore). She is presently a regional representative of the International Association for the Study of Cooperation in Education (IASCE), an executive committee member of the Southeast Asian Geographers' Association (SEAGA) and the Education Research Association, Singapore (ERAS).

List of Tables

Table 4.1	Suggested design for a classroom experiment with teaching method and class size as independent variables (dependent variables not specified)	51
Table 5.1	Curriculum attributes and means for evaluation (Table by Tamar Levine in Sharan, Shachar, & Levine, 1999).....	62

List of Figure

Fig. 1.1	Organizational model of the “greater-than-one” formula.....	17
-----------------	---	----

The Purpose of This Book

Genuine educational change remains a desideratum. To achieve such change requires that the very essential elements of schooling be clearly delineated and set apart from the myriad of functions that transpire in schools. Large numbers of educational change efforts focused on critical but nevertheless partial features of schools, leaving other features to operate in their routine fashion. A view of schools limited to one or two select elements of schooling, such as curriculum, assessment, pace of instruction, time on task, or even instructional methods, has limited scope and restrict change efforts to the topics identified. Absent is an encompassing systems view of schools that stands a greater chance of directing efforts that will accomplish significant change.

We propose a short and compact formula that indicates the variables considered to be absolutely essential and irreplaceable for the proper functioning of schools. The formula focuses on six variables or features of school organization that constitute schools' "behavioral regularities" (Sarason, 1971, 1982, 1995). Our contention here is not only that schools cannot function without them, but that schools cannot undergo significant change without all of these elements serving as objects of the change process.

Our formula, presented and explained in detail in the course of this short book, has two versions. One is the version whose organizational and/or pedagogical reality prevails in today's schools and generally does not lead to productive learning for students (page 10). The other version is our proposal for restructured secondary schools that can potentially achieve the goal of productive learning for a large portion of the students (page 15).

The preceding overview of this book's purpose has employed several terms that appear often in the following text and which have not been defined or explained as yet. The terms referred to are (a) compact formula, (b) productive learning, (c) behavioral regularities, (d) genuine change, (e) systems, and (f) system-wide change. All of these terms, as well as the six variables appearing in the compact formula, appear in numerous publications by authors of articles and books on educational topics. Yet, few if any of those authors conceived of the six variables mentioned in the compact formula as constituting a "system" of interrelated events. Nor did they set these terms and/or variables in relation to the others with the aim of placing them within a single, connected, and coherent context. That step is taken

in this book. Our goal is to present a systems view of school functioning that provides a mental map leading to genuine change and, from there, to productive learning for students. To the best of our knowledge, the model presented here based on our compact formula for describing school organization and instruction is not found elsewhere.

Introduction

A major problem confronting schools is that many students are turned off from learning and are bored. Boredom is destructive of learning. The No Child Left Behind (NCLB) initiative of the US government (2001) stemmed from the claim – accompanied by sharp debates pro and con – that many schools in the United States fail to achieve basic educational objectives, and that many schools are doing a poor job for a wide variety of reasons and surely not just because of student boredom (Brigham, Gustashaw, Wiley, & Brigham, 2004; Essex, 2006; Goodman, Shannon, Goodman, & Rapoport, 2004; Sunderman, Tracey Jr., Kim, & Orfield, 2004). The model of school organization and instruction presented here seeks to provide an effective plan for significant improvement in secondary school education, one of whose central aims is to make students genuinely engaged in what they are learning. The NCLB legislation emphasizes, *inter alia*, the need for school improvement. Without it one cannot reasonably anticipate improvement over current levels in student engagement in learning and in academic achievement.

The NCLB literature frequently employs the term “school improvement” to refer to the quality of the teachers, such as their academic credentials, instructional competence, and their knowledge of subject matter. Similarly, “school restructuring” is said to include steps such as transforming the school into a charter school, replacing the teaching staff, or inviting a private company to administer the school. The use of those terms in this work is distinctly different.

In the following pages, we set forth a plan for reorganizing the structural/organizational features of the school and of the classroom. Our view is that, apart from exceptional cases, replacing staff rarely accomplishes significant change in schools, the very kind of change that charter schools often fail to implement. Consequently, teachers and students attend the same play with different actors. Discussions of school improvement or school restructuring too often omit mention of the fundamental organizational features of schools compared to the legal and financial aspects of the NCLB or the formal requirements for teacher certification. Teachers with advanced degrees will adjust to the requirements of a school and its norms, so that certification is, as widely recognized, a necessary but not sufficient condition for school improvement.

Of course the quality of teachers is a decisive variable that affects students’ learning, as the NCLB initiative asserts (Lane, 2004). No set of organizational or pedagogical

procedures circumvents the teachers. But highly qualified teachers frequently find themselves working in an organizational system that constrains and powerfully limits or even inhibits their ability to function at their best. Clearly, the mandate by NLCB to maintain a high standard of teacher qualification must be accompanied by an appropriate implementation of the instructional process (Smith, Desimone, & Ueno, 2005).

Students Are Bored in School

The chances are very great that, if asked to spend an hour observing a classroom in a middle school or high school, you would come away thinking that the students were bored and not interested in what they were supposed to study. Contemporary thinkers about teaching and learning in schools, including John Dewey in 1938, pointed out the ubiquity of student boredom in school:

How many students...were rendered callous to ideas, and how many lost the impetus to learn because of the way in which learning was experienced?...How many came to associate the learning process with ennui and boredom?

(Dewey, 1938, pp. 26–27).

A symptom of boredom is psychological shutdown: The mind wanders away from the current scene to matters of greater personal concern or to the land of fantasy and daydreaming. Most people are subject to that condition now and then. Students can be observed in that condition very often when they are subjected to relentless “direct instruction,” a euphemism for lectures:

Boredom is what eventually gets both the teachers and the students. This is why many programs that rely on direct instruction are often discontinued by schools after a few years. These programs do not believe in the power of teachers as learners or of students as thinkers and problem solvers

(Fullan, Hill, & Crevola, 2006, p. 11).

“School is not meant to be entertaining” is a comment one can hear fairly often. That must NOT mean that boredom in school should be tolerated. Being bored in school means that students’ learning is *unproductive*. Unproductive learning means that schooling does not stimulate students’ desire to learn, their need for learning, or their curiosity about subjects taught in school, which by all reports declines over the years of schooling. In short, students may learn something in school, but too many of them do not show signs of wanting to learn.

Readers should take notice of the fact that this book does not undertake to focus on the socioeconomic or ethnic-linguistic background of the students as factors that explain their level of engagement in, and learning of, academic subject matter. Our attention is directed here to what the school and its teachers do with the students who attend the school, whoever the students may be.

In addition to students’ desire to learn, the term “unproductive learning” also refers to students’ almost total concentration on the grades they will receive, with

little concern for the substance of what they learn. At the middle and high school level, parents too largely confine their interest in their child's schooling to the grades the children receive and do not inquire much about their interest in the substance.

Why the Boredom?

What causes student boredom and lack of involvement? Are incompetent teachers the cause? Is it irrelevant subject matter?

One frequently cited cause for students' boredom is the large number of courses students must study simultaneously. In the United States, students attend approximately 5 or 6 academic courses during a week; in Finland the number can rise to 10 courses per week in some schools; in Israel students take 14 courses per week, few of which meet more than once during the week. In high-level technological schools, students in Israel study 18 different subjects for up to 50 hours each week of class sessions. A study load of that kind is repelling. Few adults would be prepared to subject themselves to the rigor and strain of attending high school classes for 5 days a week, 5 hours or more each day, and with that time span chopped up into 14–18 pieces.

Another critical cause of students' boredom in school is the prevailing method of teaching by lecture: students are expected to pay attention to teachers who talk most of the time. Students are reprimanded, even punished, when they are unable to comply with that demand, especially when much of what teachers talk about appears to bear little relation to the students' lives.

Are the teachers the source of student boredom? In any moderate-size country there are hundreds of thousands of teachers, millions in the United States. Tiny Israel has over 150,000 educators who work in the schools. Such large groups encompass people with a very wide range of abilities and skills. Hence, it is unreasonable to view the teachers' personality as the primary cause of students' boredom. Nor could school systems dismiss large numbers of teachers even if they wanted to, and go looking for more able personnel. They are not available, no matter which country we are talking about.

There is evidence for asserting that teachers possess very limited knowledge about what constitutes productive learning for students. Rarely, if ever, do teachers in schools engage in serious discussion of that topic with their fellow teachers. Given that student learning is the very focus of their professional activity, the absence of debate over the nature of learning in school should be cause for dismay (Sarason, 2004).

Educational researchers and thinkers continue to study and write about school learning. But publications by academic personnel on the nature of school learning reach the teaching profession very slowly if at all. There is a "sharp divide between educational research and scholarship and the practice of education in schools and other settings" (Shavelson & Towne, 2002; Stevens, Wineburg, Herrenkohl, & Bell, 2005).

When teachers do become aware of the discussions of teaching and learning going on in the academic world, they may feel helpless to change anything significant in their schools. The major organizational decisions that affect their work are not in their hands. Too many teachers appear to accept student boredom as a kind of occupational hazard.

The Road to Productive Learning in School

Readers will undoubtedly identify the conception and design of productive learning that we focus on here as based on John Dewey's works about education (Archambault, 1964; Dewey, 1910, 1916/1944, 1938/1963) as well as on the seminal writings of Seymour Sarason, John Goodlad, and other luminaries of educational thought.

Schools engender productive learning when students are motivated and engaged (McCaslin, 2006). Many schools claim that they strive to make learning meaningful and motivating, alongside enhancing students' scores on achievement tests. What should schools do if many students remain apathetic or alienated from learning? Change for the better in the process of schooling is necessary if student learning is to become more productive. Basic patterns of schooling in secondary schools have remained relatively unchanged over a large part of the twentieth century. However much some authors emphasize the importance of the products of schooling rather than its process, nothing much can be achieved without a well-considered and well-implemented process. In the world of learning, the process is often identical with the product. Of course there must be a product, but schooling seeks to have students engage in learning and acquire an appetite for learning, and not only produce answers on tests. Hence, learning can be both process and product, although on occasion educators may wish to identify the products of learning apart from the process. Unfortunately, the need to document the nature or quantity of the product has often supplanted the importance of the process (Chubb & Moe, 1990).

The method typically employed for "improving" achievement is for teachers to repeat to students more intensively what they told them earlier. A certain percentage of the student population will reach some acceptable level of formally evaluated academic achievement even if teachers revert to brute rote learning, constant rehearsal of materials, and frequent testing. People learn in almost all circumstances. But, the prevailing concentration of schools on the results of achievement tests as the end-all of schooling belittles the entire educational enterprise and demeans the most human qualities of the students.

It is not our intention here to ask the question – important though it is – of what constitutes human learning. That question has occupied the attention of thinkers, scholars, and investigators since antiquity, and is still far from receiving satisfactory explanations. Our aim here is to discuss the conditions for enhancing learning that can be designed and implemented by schools and teachers.

One overview of the main features of learning identified a substantial list of uniquely human strategies for harnessing information and making sense of the world

through “an intentional process of learning” as well as many ways to enhance learning (Stoll, Fink, & Earl, 2003, pp. 26–28, quoted in Costa, 1996). Four central conditions that, to our mind, are decisive for fostering productive learning are as follows:

1. Teachers should determine their point of departure for the study of a given topic on the basis of what students think or believe. Teachers’ understanding of their students’ incomplete understanding, false beliefs, misconceptions, naive interpretations of concepts, and so forth, provides teachers with a guideline for instruction.
2. Teachers should help students categorize and connect ideas and relate them to their existing knowledge.
3. Young people can be motivated to become deeply engaged in learning by undertaking learning projects directly related to the wider community, possibly related to various kinds of problems confronting the community, by activities that allow students to make real decisions, by the opportunity to work with their peers in small groups to understand and “solve” problems, and to engage in activities and acquire skills that are expressly and visibly valued by other people (Elmore, Peterson, & McCarthy, 1996; Hargreaves, Earl, & Ryan, 1996; McCaslin, 2006; Sharan, Shachar, & Levine, 1999; Sharan & Sharan, 1992; Thelen, 1981).
4. Adequate time for the pursuit of meaningful learning projects is far more effective for stimulating productive learning than the truncated time slots for class sessions that prevail in today’s schools.

These four basic conditions for promoting productive learning are frequently absent in schools. Curricula determined primarily by central school authorities, highly constricted time slots for class sessions that impose uniform study and learning rhythms on large number of students, repetitive classroom experiences that fail to engage students, student isolation while surrounded by classmates with whom they are not supposed to communicate, and so forth, are the norm rather than the exception. Since schools fail to fulfill the conditions for learning that they themselves proclaim as valid, the indifference and boredom manifested by students are predictable.

Productive learning in schools can be achieved. For many schools that will entail a distinct change in the prevailing organizational norms. Many educators claim that schools change constantly and gradually “by themselves” without additional intervention. That view has been heard for decades, despite the absence of any significant change in secondary school teaching and learning through entire lifetimes (Deal, 1986; Passow, 1986). Even in schools that adopt alternative instructional methods, direct and systematic observations show that only too often those methods were practiced as interludes in between standard lectures, and the level of implementation of the new instructional approaches was haphazard and incomplete. Most teachers do not receive sustained guidance from experienced educators or consultants on how to employ alternative teaching methods. Sustained guidance over several months or more is needed for teachers to acquire some competence in the use of those methods, otherwise they are quick to abandon them. Many authors

agree that the NCLB initiative has the potential for producing radical change in schools. The decisive question is, as always, what changes will be implemented in practice (Karen, 2005). The question of “who” will be instrumental in implementing these changes appears to be decidedly of secondary importance, whatever complaints may be heard on that score (Dworkin, 2005; Karen, 2005).

Another potential hindrance to the adoption of alternative teaching methods is students’ objection to these methods unless the students are introduced to the skills and procedures necessary for deriving benefit from them. Unless informed to the contrary, students assume they will be tested on their knowledge of academic subject matter just as they had been before they were exposed to the new instructional method. The net result is that students can be very uneasy about spending time studying with the alternative methods. Teachers may forget to reassure students that their learning would be assessed in a manner commensurate with the way in which they studied and not with the standard format of tests to which they were accustomed (Tan, Sharan, & Lee, 2006).