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POLICIES FOR ESSENTIAL DRUGS IN PRIMARY HEALTH CARE

TEACHER'S MANUAL¹

*Pharmaceutical sources
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¹ To be used together with document DAP/85.3 Policies for essential drugs in primary health care: A Course Module.

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PREFACE

This Teacher's Manual was developed with the assistance of many individuals and organizations. Materials were originally prepared for a Conference on Essential Drugs for Primary Health Care, held on 11-14 April 1984 at the Harvard School of Public Health. The Conference was cosponsored by the World Health Organization, UNICEF, the International Federation of Pharmaceutical Manufacturers' Associations, the Swedish International Development Agency, and the US Agency for International Development. Conference organization was undertaken by the Office of International Health and the Takemi Program in International Health at the Harvard School of Public Health and by the Harvard Institute for International Development. Richard A. Cash served as Director of the Conference with Dieter Koch-Weser and Michael Reich as Co-Directors. Support by the WHO Action Programme on Essential Drugs, and especially its Director, Ernst Lauridsen, has been critical in every phase of this project.

Two committees reviewed the preparation of the cases and the organization of the Conference. An Outside Advisory Committee included Rosalyn King of USAID, Paul Belford and Jay Kingham of the US Pharmaceutical Manufacturers Association, Ved Kumar of the World Bank, and Fernando Antezana of WHO. A Harvard Faculty Advisory Committee consisted of Professors David E. Bell, William Curran, John David, Irving Goldberg, Peter Goldman, Al Henn, David Young, and student representative Birgitta Rubensen. Assistance and comments from persons on both committees greatly contributed to the quality of the Conference and the cases.

These teaching notes are only recommendations on how instructors might use the Course Module in a classroom. Analyses and teaching suggestions in this volume also benefitted from the contributions of faculty members at the Harvard School of Public Health and from the classroom experiences of both instructors and participants at the Conference. As others use these materials, new ideas and problems will emerge. And as policies in the world change, new cases and materials will become necessary. We look forward to receiving comments on your experiences with these materials, for it is through your observations that we will be able to improve the effectiveness of this Module for teaching about essential drugs policies.

M.R.R.
R.A.C.

INTRODUCTION

This Teacher's Manual accompanies the Course Module on Policies for Essential Drugs in Primary Health Care. The Module seeks to raise the complex issues related to pharmaceutical policy in ways that will contribute to training and problem solving of managerial aspects of essential drugs programs. This volume provides guidance to the instructor who wishes to use the materials in the Course Module. The Manual includes teaching notes for the three cases in the Course Module and two explanatory essays for instructors new to the case method.

These teaching materials are designed for several audiences:

- Students in various health schools (including medical, pharmacy, public health, and nursing schools) could use the materials to gain a better understanding of the national context of policies for essential drugs. The cases illustrate problems of pharmaceutical policy that are not usually addressed in the health professional schools. The Module could also be used in courses on public policy, especially those relating to health matters and the development process, and business policy.
- Policy makers in both the public sector and the private sector might come together and use the materials to discuss general issues related to essential drugs policy. Discussion of the cases could help people understand the perspectives of other persons involved in pharmaceutical policy, and could create an environment more conducive to rational debate.
- Government officials in various health-related ministries could use the cases to explore a broad range of policies for essential drugs and the intended and unintended consequences of those policies. The Course Module could assist in training government officials in the complex issues associated with essential drugs, involving economics, politics, management and business, and might thereby indicate new approaches to address existing problems.

The three cases in the Course Module raise many questions about the design and implementation of appropriate national policies for essential drugs. The cases are intended more to raise issues than to provide answers. The materials indicate the connections between policies for essential drugs and broader national goals in health, in politics, and in the economy. The cases stress the importance of considering both the problems and the contributions of the public and private sectors in policies for essential drugs.

The first case, *Public Sector Policies for Essential Drugs in Mabina*, focuses on policies related to the government's drug supply system and its health facilities. The second case, *Additional Policies for Essential Drugs in Mabina*, examines policies for essential drugs that go beyond the government's own health services and involve the private drug system. The third case, *Pharmaceuticals, Ltd.*, studies the investment strategy of a private pharmaceutical company in two countries, especially in relation to government policies on essential drugs. All three cases are based on the composite experiences of several countries, although names and locations of organization, names of individuals, and numerical data have been changed. These changes were made, however, in ways that did not distort the essence of the problems in the cases. The Faculty Advisors at the Harvard School of Public Health assume full responsibility for the contents of the cases.

The successful use of the materials in the Course Module requires that the instructors (as well as the participants) understand the case method, which depends on class discussion and a problem-solving approach. The Introduction to the Course Module briefly reviews how the cases were developed, the nature of a case, the educational purpose of a case, and how to prepare a case. These topics are intended primarily for students, but instructors may also find them useful.

Instructors who have not previously used the case method should study the two articles reprinted in this Teacher's Manual on "Use of Case Materials in the Classroom" and "Preparation to Teach a Case". Although written for instructors in a business school, the articles provide important guides on how to lead the discussion of a case in ways that are applicable to this Course Module. Cases do not teach themselves, but require an instructor who knows the method, the contents, and the lessons to be drawn.

CASE 1:
PUBLIC SECTOR POLICIES FOR
ESSENTIAL DRUGS IN MABINA

Teaching Note

This case focuses on policies for essential drugs in the public sector of Mabina. It examines four central issues (each of these is noted in the case by a section heading): the popular demand for pharmaceuticals; the government's financing policy for drugs; prescribing habits in government health services; and organizational problems in supplying drugs. This note is organized around proposed study questions to structure the analysis of the case, present several topics for class discussion, and suggest broader themes that may emerge in discussion.

This case is intended to illustrate the following general points:

- (i) the problems in the public sector drug system that gave rise to demands for a policy on essential drugs;
- (ii) the ambiguity of the meaning of essential drugs, including both the objectives and the mechanisms of the policy;
- (iii) the public sector's limited technical and administrative capacities, which act as a constraint on implementation;
- (iv) the attitudes and behaviors of consumers and providers that act as a constraint in achieving the objectives of a policy for essential drugs.

1. What are the objectives of Mabina's policy for essential drugs?

Mabina's policy for essential drugs has two objectives: to increase the use of safe and cost-effective drugs, and to decrease the use of unsafe and cost-ineffective drugs. These two objectives might be considered as positive and negative goals, respectively. Both objectives are intended to achieve the larger goal of improving the health of the population, especially the poorer and rural groups in society. Secondary objectives, following from the first two objectives, are: to achieve savings in the drug bill (both on a national level and on the consumer level) through a reduced number of drugs and through greater use of generic products; to make management easier through a reduced number of drugs and thereby increase the efficiency of the government's drug supply system and reduce wastage; and to improve the training of health professionals by teaching them at least how to use effectively the limited number of essential drugs.

It is important to note that the concept of "accessibility" of drugs must consider both availability and price. The discussion of this question (What does the government want to achieve with its policy on essential drugs?) should indicate that the objectives are connected

to all levels of the public sector drug system. The class should review the WHO's proposed "overall objective" for a policy on essential drugs and discuss its ambiguities. The class should also discuss whether the objectives of the policy are adequately defined and whether some objectives might conflict with others.

2. What are the problems that Mabina's essential drugs policy was designed to correct?

Mabina's policy for essential drugs was designed to correct a multitude of problems that affect the nation's drug supply system, arising from both public sector and private sector activities. Those problems include the following:

- (i) generally inefficient management of drug supply to hospitals, health centers, and dispensaries, especially problems of stock management, inventory record keeping, and supply ordering;
- (ii) popular demand for drugs, tending to stress inappropriate drugs, related to people's lack of understanding of disease causation and treatment, to prescription patterns and medical practices, to inadequate sources of public information about drugs, and to private advertising;
- (iii) high price of drugs in the private sector, which may reduce access by poorer groups of society to medicines they need;
- (iv) maldistribution of drugs in the public sector, favoring hospitals over health centers, and health centers over dispensaries, with a general bias to urban over rural areas;
- (v) maldistribution of drugs in the private sector, with focus on urban markets and on higher priced brand-name products rather than low-priced generic products;
- (vi) shortages of needed drugs in rural health centers, while excess of less useful drugs persist;
- (vii) inappropriate prescription patterns of drugs by physicians and other health providers, including overprescription, and prescription of clinically ineffective or relatively expensive pharmaceuticals, related to shortages of needed drugs and to inadequate training of health professionals;
- (viii) tendency to prescribe brand-name products rather than generic products, as well as tendency for Mabina Pharmaceutical Services to order brand-name rather than generic products;
- (ix) problems in government's drug supply system damages credibility of government health services in general and thereby may decrease utilization;
- (x) problem of increasing financial support of the government's drug supply system without decreasing access to poorer groups.

In leading the class in discussion of these points, the instructor can note that the problem definitions are not clearcut and may be controversial. Different groups in society, with divergent political philosophies, will define the problems in different ways, with quite varying implications for policy. The class might discuss which problem should receive top priority, and why.

3. What mechanisms have been adopted to achieve the objectives of the essential drugs policy?

Mabina's essential drugs policy, instituted last year, consists of three basic components:

(i) An essential drugs list of pharmaceutical products necessary to combat Mabina's most common health problems. This list of drugs, modeled after the WHO list of 249 essential drugs, includes 100 drugs under generic names.

(ii) Restrictions on prices of products specified on the essential drugs list, through exemptions from import tariffs and imposition of strict controls on profit margins in private pharmacy outlets.

(iii) Restrictions on products specified on the essential drugs list, to control the drugs that can be prescribed and distributed at each level of care in the government's health system. Drugs on the essential drugs list are divided into three categories (A, B, and C), according to the level of training required to properly diagnose and prescribe the product. Dispensaries are only authorized to distribute from category A, while health centers can distribute from both A and B, and hospitals can draw from all three categories.

In addition to these three components of the essential drugs policy, the government has other policies that affect the functioning of the government's drug supply system. One such policy is the fee-for-service program, instituted to raise money for improving local drug supplies and local health facilities.

4. Evaluate the effectiveness of this policy, and identify the main factors that support your evaluation.

An evaluation of the effectiveness of Mabina's essential drugs policy would probably show mixed results. On the one hand, the policy has made some progress towards achieving what was called in question #1 the positive goal: to increase the use of safe and cost-effective drugs, especially in the periphery. Three points might be cited to support this statement:

(i) identifying the importance of getting clinically effective and cost-effective pharmaceutical products to rural and poorer people in society;

(ii) instituting price controls to attempt to create a market for lower-priced essential drugs;

- (iii) identifying the need for a more effective distribution system for drugs among hospitals, health centers, and dispensaries in the government's health system.

These three steps correspond to the three components of Mabina's essential drugs policy. Achieving accessibility of essential drugs thus depends on the right combination of pharmaceutical products, infrastructure, and manpower.

On the other hand, the current policy does not address many of the problems listed under question #2. In general, the policy does not deal effectively with what was called the negative goal: to decrease the use of unsafe and cost-ineffective drugs. Insofar as the essential drugs policy seeks to increase supply, the policy should receive support from various social groups, including consumers and producers. To what extent should the policy seek to limit "non-essential" drugs, and how should those items be defined? This question will be more controversial. In addition, the policy does not address the activities of the private sector, except regarding the private import tariffs and the private profit margins for products specified on the essential drugs list. The kinds of problems that remain, despite the policy's enactment, include:

- (i) popular demand for inappropriate drugs;
 - (ii) a fee-for-service system that may deny poor people necessary drugs and timely treatment;
 - (iii) prescribing habits that tend to overprescription and inappropriate prescription;
 - (iv) an inefficient public distribution system for drugs due to organizational structures and administrative practices.
5. What should be the next steps for the government of Mabina to improve its policy on essential drugs?

On each of the four problems noted above in question #4, the class needs to consider changes that could improve the policy and its implementation. This discussion should illustrate the two general themes mentioned in the introduction to this note:

- (iii) the public sector's limited technical and administrative capabilities, which act as a constraint on implementation;
- (iv) the attitudes and behaviors of consumers and providers that act as a constraint in achieving the objectives of a policy for essential drugs.

The end of each of the four main substantive parts of the case raises issues for improving the public sector policies for essential drugs in Mabina. Those issues can be briefly summarized:

- (i) On influencing popular demand: policies might be adopted to increase the flow of public information on drugs to and from consumers, to conduct surveys on popular uses of drugs, and to introduce new products slowly and in ways to promote acceptance. The

class might discuss how the government health services could convince poor and rural people to use clearly efficacious therapies rather than other therapies. Is Oral Rehydration Therapy (ORT) the norm or the exception in providing clearly efficacious results? Another question to discuss is whether government public education strategies are likely to be effective, given the lack of government monopoly on information. The question of what to do with private advertising provides a connection to Case 2.

(ii) On the fee-for-service program: policies might be adopted to evaluate the extent of access problems (how price affects utilization), to improve implementation of the yellow card system for the poor, and to increase the use of collected fees for improving the supply of essential drugs. The class should be asked how increased collection of user fees might affect access. Under what conditions would increased collection of fees also improve access to services?

(iii) On inappropriate prescribing habits: policies might be adopted to provide better public information on drugs to physicians and other health professionals, to create incentives for health providers to prescribe essential drugs, to supply information on cost differentials between brand-name and generic products, to improve the billing procedures of the Mabina Pharmaceutical Services and assure a supply of lower-cost drugs, and to design a quality assurance program that would promote quality control over purchases of generic products. The instructor might note that it is difficult to change the prescription habits of health professionals in developed countries as well, and that conflicts can arise between community norms and professional norms. On the problem of quality assurance for generic products, the government might consider some form of international cooperation (at a regional or global level) to monitor generic products for quality control. Such an approach could help reduce possible tradeoffs between price and quality.

(iv) On organizational problems in the government's drug supply system: policies might be adopted to clarify the division of responsibility over the drug supply system at the regional level, to design a supply system based on need rather than past shipments, to make health centers and hospitals aware of and responsible for the costs of drug supplies, to create regular channels of reporting and communication between the regional depot and its customers and its supplier, and to create a system of "standard packs" that would assure delivery to the lower levels of the drug supply system.

CASE 2:
ADDITIONAL POLICIES FOR
ESSENTIAL DRUGS IN MABINA

Teaching Note

This case focuses on policies for essential drugs in Mabina that go beyond the government's own health services, especially policies that affect the private sector and policies related to domestic production. The case's main headings are: essential drugs policy and the private drug distribution network; import restrictions on the private drug market; price and accessibility of essential drugs in the private sector; private marketing and distribution; and domestic production. This note is organized around proposed study questions to structure the analysis of the case, present several topics for class discussion, and suggest broader themes that may emerge in discussion.

This case is intended to illustrate the following general points:

- (i) the limited impact of an essential drugs program that focuses only on the government's health services, and the need to consider additional policies for the private sector and for domestic production;
- (ii) the important role played by the private sector in Mabina's overall drug system, and the need to consider private activities in designing an effective policy for essential drugs;
- (iii) the possible counterproductive consequences of public policies for the private drug system in achieving the objectives of the essential drugs program.

1. In considering additional policies for essential drugs in Mabina, are the objectives and concerns of policy similar to or different from those affecting only the government sector (described in Case 1)? What are the objectives of policy with regard to consumers? producers? other economic relationships?

Starting the discussion with this question will tie this case to Case 1 and will help the class clarify the objectives and understand the complexity of an essential drugs program. The overriding objectives with regard to consumers and producers are to increase the use of safe cost-effective drugs (i.e., essential drugs); and to decrease the use of unsafe and cost-ineffective drugs (i.e., non-essential drugs). Should these objectives of the government sector also be applied to the private market? The extent to which these objectives are pursued, the relative weight given to one objective or the other, and the means chosen to achieve these objectives will have important policy implications.

The discussion should emphasize the differences between policies that encourage private consumers and producers to use and supply more essential drugs and less non-essential drugs, and policies that restrict the choices of consumers and producers.

The principal benefits of policies that restrict choice are effectiveness and speed. Potentially, restrictions could quickly reduce the supply of cost-ineffective drugs, forcing consumers to reduce their consumption of cost-ineffective drugs. These changes in supply and consumption, however, would not necessarily increase the use of cost-effective drugs. Consumers could substitute traditional medicine for cost-ineffective drugs, or reduce their consumption of drugs.

Restrictions on supply, however, can produce negative consequences that would reduce the effectiveness of policy. The restrictions could encourage the growth of a black market for non-essential drugs. Restrictions could also result in the withdrawal of private drug companies or traders from the market, which might reduce the supply of essential as well as non-essential drugs. The extent to which these two outcomes occur and the resulting costs should be compared with the beneficial effects of restrictive policies. The instructor might note the importance of considering whether a policy can be effectively implemented.

The discussion should bring out the philosophical underpinnings of policies that restrict choice in the private sector. Should consumers be prevented from purchasing expensive 'luxury' foreign drugs when they are permitted to purchase luxury foreign cars and clothes? What makes drugs different from these products and other commodities? Would limiting the production and marketing of non-essential drugs (the negative objective) contribute to increasing the availability of essential drugs (the positive objective)? The class might also discuss the direct link between drugs and health, because drugs are considered a 'basic need', while foreign cars, etc., are not. The instructor might note that the issue of restrictions on choice reflects two different notions about equity. One notion proposes a decent minimum standard for all, with the richer people able to get more. The other proposes everybody ought to get the same, with no excess goods for the rich. Which notion of equity is adopted in policy will reflect the political structure and ideology of a society.

2. If the government could implement its essential drugs policy for the public sector, would problems with essential drugs nonetheless remain? If so, describe the problems.

The purpose of this question is to illustrate that many problems in the nation's drugs supply system would be largely unaffected if the government were able to implement its essential drugs program in the public sector. This is because of the relatively small size of the government health sector, its failure to cover the village level, and its possible inaccessibility to the poor and geographically peripheral, problems which are not addressed by the current essential drugs program. Also, since the essential drugs program does not attempt to change consumer demand for drugs, many consumers would purchase non-essential drugs in private outlets if these drugs are no longer available through the government's services. The problem of the accessibility of essential drugs in private outlets (both in terms of physical supply and affordability) would also persist unless policies are adopted to change the situation.

3. What possible actions could the government take to address those problems, and what would be the likely consequences on different social groups, public and private institutions, and policy objectives?

The case focuses on four main areas for government action: import restrictions on the private drug market; pricing of drugs; controls on advertising; and the domestic production of drugs. Possible actions and consequences in the four areas are discussed below.

(i) Restricting private sector drug imports:

The discussion should begin with the objectives of any restrictions. Should the private sector's imports be restricted to the same essential drugs list used by the government sector? Distinctions could be made between harmful drugs, useless drugs, cost-ineffective drugs, and cost-effective drugs. The class might also discuss the definition of essential drugs, if this issue was not adequately raised in the analysis of Case 1. If the objectives are not the same for the private sector as for the government sector, the list of allowed drugs for the private sector may be larger.

Restriction on imports would be opposed by foreign and domestic drug manufacturers and wholesalers, and by private drug retailers and pharmacists (all of whom may face reduced profits and sales volume). Consumers might oppose restrictions because of the limit on choice, although this opposition might be somewhat eased if the restrictions increased the supply of low-cost, essential drugs. Some health practitioners would oppose any restrictions because of the limit on the freedom of professionals to choose drugs. Some health professionals, however, might favor restrictions because that step could simplify their job (reducing the number of drugs that prescribers must know) and could similarly simplify the training of practitioners.

(ii) Price controls on private sector drugs:

If the policy objective is to increase the supply of essential drugs in the periphery, then the private drug retailers need to be provided with fair profit margins to cover their distribution costs. This approach would be supported by private retailers and the more affluent consumers in peripheral areas, while the poorer groups in the periphery who cannot afford the drugs could remain largely unaffected. On the other hand, if the policy objective is to increase the ability of poor people to afford essential drugs, then private profit margins should be controlled in order to keep the final price low. This approach would please groups in the geographic center, but would not be liked by private retailers or by groups in the periphery, where shortages could occur.

It is difficult to achieve the two objectives of wide distribution and low prices at once, without government subsidies. Such subsidies, however, would be expensive for the government's budget and would introduce economic distortions into the market.

(iii) Controls on advertising:

The objectives of policies concerning private advertising are to shift consumer and practitioner demand away from cost-ineffective drugs (i.e., non-essential drugs) and towards essential drugs. Restrictions on advertising would primarily affect the first objective, while new forms of advertising might affect the second objective.

In discussing advertising, a distinction should be drawn between promotional tactics aimed at prescribers or practitioners (free samples, personal visits by detail men), and those aimed at patients (posters).

Restrictions on advertising would be opposed by private drug companies, foreign and domestic, with possible consequences being the withdrawal of companies from the country, decline in future investment, and possible retaliatory measures (such as a cut-off in supplies of some essential drugs, or an advertising campaign launched against the essential drugs program). Private practitioners might object to restrictions on advertising because their contact with detail men has real and perceived benefits for them. There are financial gains resulting from free samples, as well as informational gains. The detail men provide an ongoing source of updated (if not entirely objective) information on current pharmaceutical products from the company.

(iv) Domestic production:

In discussing this alternative, it is important to be clear about the objectives. The domestic production of essential drugs is only successful in terms of an essential drugs program if it is able to lower the costs and increase the supply of essential drugs, even though the encouragement of domestic drug manufacturing capacity may achieve other national objectives that render it desirable (such as stimulating ancillary industries, providing local training and employment, increasing capital stock, and achieving security of supplies). Increasing the domestic production of drugs may not lower the costs or increase the supply of essential drugs. In discussing this point, a distinction should be drawn between the short-term and long-term potentials for achieving these goals.

4. Given your analysis of policies for essential drugs in Mabina, what general characteristics come to mind to describe a good policy option?

This question might be discussed in class to raise some of the issues of balancing the objectives of public and private interests in the design of good public policy. The instructor should help the class identify the different definitions, values, and interests that exist in society and can affect the design of policy for essential drugs.

**CASE 3:
PHARMACEUTICALS, LTD.**

Teaching Note

This case focuses on the investment strategy of a private pharmaceutical company in two countries, especially in relationship to government policies for essential drugs. The case's main headings are: background on the pharmaceutical industry; the proposal from Mabina; and a reassessment of Itasca operations. This note is organized around proposed study questions to structure the analysis of the case, present several topics for class discussion, and suggest broader themes that may emerge in discussion.

This case is intended to illustrate the following general points:

- (i) government regulation of the private drug system, under certain conditions, may have counterproductive consequences for the objectives of public policy;
- (ii) the private sector can have a role to play in implementing policy for essential drugs, especially in achieving the positive objective (of increasing the use of safe and cost-effective drugs);
- (iii) government policies for essential drugs raise symbolic and real stakes that extend beyond pharmaceuticals and beyond national boundaries;

The class might be organized to discuss first the situation in Itasca, and then the proposed investment in Mabina, examining how the experiences in Itasca might influence the company's decision on Mabina. In discussing the situation in Mabina, the instructor might assign roles to individuals in the class and ask them to play out the negotiations between company officials and government officials, including other interested parties such as the domestic drug industry and consumer organizations. At the end of the session, the class could be asked to vote on whether Pharmaceuticals, Ltd., should invest in Mabina under the conditions proposed during the negotiations in class.

1. What are the consequences for Pharmaceuticals, Ltd., of the Itasca government's drug policy, which Mr. Hill must consider in his investment strategy?

The class should first review the goals of the Itasca government's policy. Those goals resemble the objectives of the public policies for essential drugs raised by Cases 1 and 2, and the class should be reasonably aware of the reasons for adopting such goals in a developing country.

Next, the instructor could ask the class to outline the methods adopted by the Itasca government to achieve its objectives. The principal mechanisms of government policy are: controls on prices (with unintended long delays in determining prices); controls on profit margins; reduced patent protection to eight years; controls on royalties and technical payments

abroad; price adjustment orders for price reductions on specific products; the process of having a state-owned enterprise purchase bulk active ingredients and then sell the ingredients to all companies operating in Itasca.

The class next needs to consider how the government's policies are affecting Pharmaceuticals Itasca, Ltd. (PIL). Although the case does not provide numbers, the company's profit and loss statement for the past six years shows declining profit figures, probably due to rising costs of production combined with government controls on prices. This pattern reflects a more general trend in the industry, especially for foreign companies, as noted in the article published in the trade journal. In addition, PIL has been hit by several price adjustment orders on specific products, which could put the company into the red if PIL decides to implement the orders.

The trade journal article, "Problems with Government Regulation in Itasca", noted that a highly regulated system that has several conflicting objectives and is badly administered may end up achieving none of its objectives. The class might discuss this point, especially whether the policy is achieving any of its objectives. As reported in the case, the policy has reduced profits of private manufacturers (especially for large foreign companies), affecting production and investment, with shortages of many drugs, diminished introduction of new products, and increased deterrents to research. In addition, inadequate attention to quality control has contributed to poor quality or ineffective drugs. This discussion should illustrate the general point (noted above) about how public policies, under certain conditions, can produce counterproductive consequences for stated objectives.

It is important for the class to discuss how Pharmaceuticals, Ltd., became involved in its Itasca operations. The company entered Itasca in the early 1960s, in an agreement with the government to help develop new technology in exchange for approval to manufacture and market its products in the country. Although PIL initially did well in the Itasca market, the government's policies have increasingly squeezed PIL's operations and profits. Mr. Hill is now considering three options for PIL: divestiture, decentralization, or increased investment. The class does not need to make a decision on these three options, but the generally pessimistic assessment of the Itasca situation by Mr. Hill should be made clear. Again, the main purpose of the discussion of PIL's operations is to provide background for the decision on Mabina.

2. How might Mr. Hill reduce the likelihood of similar consequences occurring in the future for the proposed investment in Mabina? In negotiations with the government of Mabina, what role should Mr. Hill propose for Pharmaceuticals, Ltd., in the government's health policies and programs?

The central questions for class discussion are: What did Pharmaceutical, Ltd., want from Mabina? And what was the company willing to give in return? Among the points that the company wanted to obtain in its negotiations with the government are the following:

- (i) access to an adequate market: This point is probably assured by Mabina's participation in multi-nation economic organizations, which would give Pharmaceuticals, Ltd., access to 16 other African organizations (total population of 170 million) and access to the European Economic Community, through Mabina's former colonial ruler.

(ii) tax relief and exemptions from customs and duties: These conditions would be satisfied by the approval to locate the company's factory in Mabina's Free Trade Zone, providing the company with financial advantages in importing materials and in manufacturing products.

(iii) flexibility in product selection for manufacturing and in prices: These conditions would be satisfied by the government's agreement to allow the company to manufacture 10 to 15 high-quality ethical drugs, including some "basic drugs of social interest" and some brand-name patented products. The first group would be sold as brand-name generics or brand-name products, and not as commodity generics. The government had agreed that this definition would not restrict the factory's products to the stringent price controls applied to essential drugs. The proposal would gain on volume of sales what might be lost on uniqueness of product (since nonpatented products tend to have a lower profitability, due to increased competition and to price controls).

(iv) the government's protection of trademarks but not its protection of patents: The choice of products indicated above depends more on nonpatented than on patented products, and therefore protection of patents is not required (although it would still be desirable). The strategy does depend on the development of brand-name identification, however, which requires the protection of trademarks.

(v) government assurances not to impose unreasonable controls on prices or profits: Promises may not be difficult to obtain, but the future reliability of the promises is uncertain. The reliability of the assurances might seem high enough from the reported political stability of the country. In addition, the company's cooperative program with government officials and university academics could provide additional security for the company's market share and operations in Mabina. Cooperation with the country's elite to assist in implementing Mabina's health agenda could lead to increased security for achieving the company's agenda.

(vi) government agreement to allow the import of some brand-name products: This condition is especially important in the early phases of the project when the factory is not producing a full line of pharmaceuticals. Imports of brand-name products would allow the company to increase the profitability of the project, since these products typically have higher profit margins than would drugs produced at the factory in Mabina.

In negotiations with government officials, Pharmaceuticals could propose several specific programs to assist the country's health policies and programs:

(i) technical assistance in the design of government policy for pharmaceuticals, especially on aspects of quality control, information systems, and distribution systems.

(ii) technical assistance in the development of management skills for health policy, especially for inventory management, accounting procedures, job definitions, evaluation methods, and training programs.

(iii) technical assistance in the development of health education programs, especially in defining appropriate topics, designing outreach projects, and evaluating results.

These proposals could be developed through tripartite committees, including government officials, university professors, and company representatives.

The class should be asked to identify the benefits to the company of such a cooperative project. Among the potential benefits are:

- (i) developing access to country elites, thereby helping the company break into a new market and establish cooperative ties with important public and private leaders;
- (ii) developing channels to influence government policy on issues of direct and indirect importance to the company's operations;
- (iii) contributing to improve Mabina's public and private drug systems, especially in distributional and procurement aspects, and possibly in removing low-quality products, which could expand the market for products from the company's proposed factory;
- (iv) contributing to the design of government regulations of the drug systems in Mabina that would benefit the company's proposed operations (the point might be made that not all regulations are bad for industry; some can produce benefits for particular segments of the market);-
- (v) contributing to identify the central constraints to health improvement as problems of government policy, management skills, and health education, which could help reduce public criticism of private drug companies.
- (vi) contributing in the long run to improving the health of the people in Mabina, and thereby indirectly promoting economic growth and productivity, and expanding the potential for the company's high-quality drugs.

3. How should Mr. Hill deal with the political and economic forces (within the company, within the country, and within the global environment) that could affect the success of his investment strategy in Mabina?

Mr. Hill must confront criticism and opposition to the Mabina proposal that could arise within the company, within the country, and within the global environment. The class be asked to identify the sources of criticism and to suggest ways to respond to the opposition:

- (i) Within the company, Mr. Hill would encounter several sources of criticism, on the project's profitability, on the security of investment, and on the proposed collaboration with government and university officials. On profitability, the case indicates that a "special financial analysis on a direct out-of-pocket cost basis" might show a return on investment, in contrast to the full-cost basis of accounting. Which method could be used might depend on the support Mr. Hill can obtain from the accounting department, about which the case provides no information. On the security of investment, when compared to lower risk investments (for example, in Japanese companies or in U.S. municipal bonds), Mr. Hill might suggest that the collaborative project would reduce the risks of investment. On the proposed collaboration, Mr. Hill might argue that the company has the personnel who could provide services to governments, that the company performs

similar activities in developed countries, and that the information gained from the contacts would be as valuable as the information provided.

(ii) Within the country, criticism of the investment and associated project could come from other companies and from opposition politicians. Criticism from other companies might be countered by arguing that Pharmaceuticals, Ltd., would be providing services that would benefit all the companies by improving the distribution, procurement, and payment systems (providing what is called a "public good") and reducing potential criticism of foreign pharmaceutical companies. Criticism from opposition politicians might be countered by access to the ruling elite, and gaining their confidence, and by providing services that effectively meet some of the objectives of the opposition politicians (that is, good health services for the poor and rural residents of society).

(iii) Within the global environment, the investment and associated project would not likely encounter objections from the usual critics of multinational corporations (consumer groups) or from the World Health Organization. Some might say that the project does not go far enough, since it still produces brand-name generics or brand-name products, and thereby still supports the profit-making activities of the company. On the other hand, some companies might argue that project goes too far, setting an unreasonable standard for private companies to follow in their investments in developing country. On this point, the class might be asked whether the investment and proposed project from Pharmaceuticals, Ltd., could be considered typical or whether it should become typical.

4. As a high-ranking official in Mabina's Ministry of Health, what role would you want Pharmaceuticals, Ltd., to play in the government's program on essential drugs?

On this point, the class might be asked to identify possible objections that a Ministry of Health official might have to the company's proposed involvement in government policy. Several criticisms might be raised:

(i) The proposed project might be viewed as a circumvention or subversion of Mabina's essential drugs program, since the products will not be subject to price controls, according to the agreement between the government and the company. It is possible that the project might improve the distribution of essential drugs (as brand-name products or brand-name generics), but at higher cost than the generic forms of essential drugs. The higher cost could reduce access to the poorer members of society.

(ii) The company has a bias against generic products, reportedly due to concerns about the lack of quality control for some generic products. This bias, according to some industry critics and consumer advocates, represents more an anti-competitive strategy of larger firms than a real concern about the purchase of generic products. Increased government involvement with company executives could support such views that would increase the cost of Mabina's national purchases of drugs instead of reducing the cost, and thereby work against the objectives of the essential drugs program.

The class might be asked to identify other objections as well as the potential benefits of collaboration with Pharmaceuticals, Ltd. Finally, the class might be asked to decide whether a form of collaboration could be designed that would provide benefits to both sides while also protecting both sides against their perceived risks.

USE OF CASE MATERIAL IN THE CLASSROOM*

In the conducting of any formal educational enterprise, there are details of size of class, length and nature of assignments, intensity of questioning, use of call lists, grading of classroom performance, and so on, to which some attention must be given. Under the case method, the importance attached to these quasi-mechanical factors will vary considerably, depending on the nature of the material, the maturity of the students, and the preference of the instructor for nondirective discussion or for closely controlled analysis and discussion. The following observations set forth views on these matters expressed by various members of the Harvard Business School Faculty in the course of a survey conducted shortly after World War II. They are summarized from material prepared by Robert W. Merry for inclusion in a memorandum to the Committee on Educational Policy from the Subcommittee on Instruction Methods, then under the chairmanship of Professor Harry R. Tosdal.

With respect to the practical aspects of conducting a class under the case method, we propose to discuss the following topics: size of class, assignments, discussion of cases in the classroom, sustaining interest, call lists, grading, and encouragement of volunteering.

Size of Class

There is apparently a widespread impression that the case method works most effectively with small classes. This impression is not, however, confirmed by experience. At the Harvard Business School, over a period of years classes have, in fact, ranged from six or eight students to more than 100; and the consensus seems to be that numbers from forty or fifty to eighty are the most satisfactory. When the class is too large, the group may be somewhat unmanageable. The success of the case method depends to a marked degree, of course, on the development of active discussion. In a very large class, it may well be impossible to give an opportunity to everyone who wishes to speak; and when students are repeatedly denied the chance to contribute, their interest diminishes. Furthermore, when the class is large and more students volunteer than can be heard, nonvolunteers cannot easily be drawn into the discussion. The initially reticent stay reticent. In a very large class also, the instructor has difficulty in getting to know the students, and the students to know one another, with the result that a too formal atmosphere prevails well into the year. In a class of more moderate size these disadvantages are not present.

At the other end of the scale is the class which is too small. Here also it may be difficult to secure active discussion, but for a somewhat different reason. Experience seems to indicate that at least ten or twelve outstanding students are necessary to ensure a lively and fruitful discussion. In a small class, that many outstanding students may not be registered. Or, if they are, on a given day preparation may have been skimped because of a heavy work load

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elsewhere, and the good students who are present and prepared may not be sufficiently numerous to carry the discussion forward.

Assignments

The usual assignment for outside preparation is one case per class per course, although this practice is by no means universal. In a course where the cases typically are long and complicated, a single case may be assigned for two or three class periods. (Here it should be remarked parenthetically that discussion the second day and on the third proceeds more satisfactorily if the assignment for the day has suggested angles requiring careful further preparation.) In other courses several cases may be assigned for a single meeting. And there are many possible procedures between the two extremes. Several short cases may be taken up one after another. One case may be discussed in detail, the others in the group being assigned for background. Or a number of cases may be assigned but the discussion limited to specific aspects, indicated in advance. Or a full case may be accompanied by a series of short sketchy situations that provide variants to the conditions of the principal case.

There is no uniformity in the method of giving assignments. Most frequently the assignment for the following meeting is given orally in class. Occasionally, though rarely, there is a standing assignment to read one or two cases beyond the case under discussion. Sometimes mimeographed assignment sheets are distributed at the beginning of the term or at intervals throughout the term; when these are used, the assignment made in class is likely to be very brief. Regardless of the procedure in making an assignment, however, the instructor may find it helpful to comment on the position which the case occupies in the scheme of the course, to clarify the relationship among cases, and to call particular attention to significant aspects for special study. Occasionally also he may want to set the scene, as it were, especially with reference to the timing of the case. In assigning a problem which faced executives in 1946 or 1947, for instance, he may want to remind the class that at this time the country was just emerging from a period of merchandise shortages, that price controls were just being lifted, and so on. Especially with cases dating back a number of years some setting of the stage helps to hold the students' preparation at a realistic, practical level. In connection with old cases also it often happens that a roughly similar situation exists currently, as, for instance, the anticipatory price rise following the beginning of the Korean war in 1950 in comparison with the price rise of 1940-41. Where there is such a parallel, discussion is likely to be the most spirited when it is focused on the recurrent aspects of the problem.

On the desirability of furnishing a detailed course outline, opinion differs. Some instructors believe that a detailed outline helps the students to grasp the concept of the course and the particular area of study at any time, that it serves as a guide to give meaning to current discussions by showing their relation to the subject as a whole. Other instructors have had the experience that students tend to confine their examination of the case to the restricted area indicated in the outline and may overlook much of the value of the case for areas beyond the special field.

Where the case material includes figures, the instructor may find it desirable, in commenting on the assignment, to offer fairly specific guidance. Sometimes figures are presented in a case primarily for background; at other times they are critical to the questions at issue. The two situations may be difficult for students to distinguish, and the instructor may need to indicate that a few, or many, calculations will be necessary for an intelligent understanding of the case.

Written Assignments for Class

Normally, student preparation consists principally of thoughtful reading of the case, probably with underlining of the text and the making of marginal notations. Where mathematical calculations are pertinent, some notes on these will ordinarily be brought into class. Occasionally also the student will have jotted down a rough outline of factors bearing on the principal issues and some tentatively formulated conclusions. In a few courses, at certain stages periodic written assignments form a regular part of course work. At a point where calculations or procedures are important, for instance, the preparation of a page or two of written notes may be asked for. Or in connection with an advertising problem the students may be required to draft copy or submit a suggested layout.

A form of written assignment which is of marked value is the preparation of a brief summary or a list of "currently useful generalizations" based on a group of cases having a common theme. Such an assignment encourages the students to undertake a process of periodic consolidation and appraisal which otherwise they are likely to postpone under the pressure of day-to-day work.

Sometimes an instructor endeavors to sharpen preparation by asking the students to bring to class a brief written analysis of an assigned case. This analysis will serve primarily as an aid to discussion; the instructor may or may not collect and read the papers. Some instructors like to give such an assignment because then the preparation of that particular case is more careful and thorough than would normally be obtained. But the device should be used sparingly because it is likely to take a disproportionate amount of time away from the students' preparation for other courses. The students cannot prepare a number of acceptable written papers each day, give the necessary attention to the succession of longer assignments always pending, and still keep their academic engagements. Ordinarily, with their notes to refresh their memory of the case and of the thinking which accompanied their preparation, the students come to class sufficiently equipped to make an intelligent contribution to the class development of the case. Except in unusual circumstances, the written analysis of cases for daily classroom discussion does not produce results commensurate with the effort expended by the students.

Discussion of Cases in the Classroom

In the classroom there are many ways by which the instructor can open the discussion. Some instructors habitually start with the question "What is the issue?" and from there go on to "What are the pertinent facts?" Others start with "What are the facts?" Others begin by asking, "What action should be taken?" And still others simply ask, "What about this case?"

In printed or mimeographed cases, questions, which may be either specific or general, frequently appear at the end. One instructor may choose to begin with these, because presumably the students will have read and thought about them and will thus be prepared to discuss the particular aspects to which they are directed. Another instructor may prefer to disregard the printed questions and to approach the case from a wholly different angle. Students may be called on to criticize action already taken by the company, or to plan a future course of action, or both. Under the case system, discussion commonly proceeds by breaking down the given situation and examining critically each of the parts. In this atmosphere there is a very real danger that students may develop a hypercritical or negative attitude, concentrate on pointing out at what stages something was done badly or arguing why some proposed course

of action should not be undertaken, and carry their analysis and recommendations no further. In such situations, the instructor may need to make a conscious effort to direct the students' thinking into affirmative, constructive channels, to instill some feeling for the importance of positive action: "These are the circumstances; this, broadly, is the thing we are aiming to achieve; how can we accomplish it?" Here frequently it may be salutary to ask a student to imagine himself in the shoes of the responsible executive: "Mr. Jones, you are the sales manager. Never mind all the negative factors. Tell us how you would deal with this situation constructively."

Where a student is given a free hand in analyzing and discussing a case, he needs time to demonstrate his thinking; and the number of participants in the discussion in the class hour will sometimes be no more than five or six. On the other hand, if the instructor chooses to call on a succession of students for one or two points apiece, as many as thirty to forty-five students may be drawn into the discussion. The choice of procedures depends on the personal preference of the instructor, the nature of the material, the size of the class, and the maturity and experience of the students.

Under the case method the objective is to arrive at a decision, ordinarily a decision as to action to be taken. The selection of method by which to reach the objective is, of course, the province of the instructor. He may call upon the student to state his decision and then to develop his reasoning and defend his position. Or he may concentrate on securing analytical development for a large part of the period, with the class formulating a decision after the discussion has proceeded for some time. Several students in turn may state their individual conclusions and advance relevant arguments. And then, after the discussion has gone on for a while and it is fairly clear that the consensus is in a particular direction, the instructor may ask one of the students to pull together and summarize what has been said, or the instructor himself may choose to phrase the summary. Where this is manifest agreement, it may save time for him to do the job, especially if the discussion is at an intermediate stage and the summary is largely transitional. When it comes to the final decision on action to be recommended, sometimes a class vote is taken. It must be borne in mind, however, that often no single decision is reached by the end of the class period, the case being left for further thought.

It sometimes happens that the decision of the company is not reported in the case but is known to the instructor. If there is clearly no breach of confidence involved, the instructor may choose to pass the information along to the class, with or without comment on the outcome.

Sustaining Interest

From time to time class interest needs to be built up or sustained. Often a change of pace may be helpful. The instructor can modify his line of questioning, illustrate from his own experience, or turn to a new aspect — for instance, examination of the available statistical material. Expressions of opinion by the instructor should be given sparingly lest students, even those accustomed to the case method, fall into the habit of expecting "the answer" regularly to be furnished to them. Humor and a sense of showmanship are useful in case teaching, as in lecturing. Demonstrations, samples or products under discussion, motion pictures — all have their place. The blackboard is useful, not alone for figures and diagrams, but also for listing pros and cons as they develop, for indicating areas of discussion, for clarifying an involved outline, or merely for introducing some animation.

The quality of the discussion may be affected to a certain degree by such an apparently irrelevant detail as whether the instructor sits or stands. The instructor may choose to sit at the desk, where he can glance at his notes, because he feels that there he has better control over the discussion. From behind a desk, however, it may be difficult to keep the class discussion moving at a lively pace. Some instructors feel that they can secure a more spirited discussion by carrying on the class from a position in front of the desk. Once the discussion is well under way, however, with the students arguing among themselves, he may beneficially retire to the fairly inconspicuous position behind the desk.

In some courses, swing-over charts help to keep the class interest high. When the case involves relations between people and the material for discussion consists of dialogue, successive utterances may be printed on large cards stacked at the front of the classroom. One remark at a time is discussed, with possible rejoinders, before the card is swung over and the actual response is shown, to be discussed in its turn.

Role playing is another device which is effective in stimulating and maintaining interest. Students are assigned to represent designated persons in the case, the objective being to personalize the case for the students, to make them feel the reality of the situation, and to lead them to give thought to the personalities and relationships which are concerned. When roles are assigned in advance, preparation may be expected to be excellent on the part of the individuals selected, but superficial among the rest of the class. When the class is divided in advance into groups from each of which it is announced that one student will be selected for a specified role, general preparation is good, provided the groups are small enough so that each student has a reasonable chance of being the one selected. When the assignment is in vague and indefinite terms, however, merely indicating that at the next meeting some students will be asked to play roles, the results are not very satisfactory. Nor is sustained role playing successful when introduced without advance notice; it is a task for which more than ordinarily intensive preparation is required.

Somewhat akin to role playing is the device of turning the development of a case over to a team of two or three students. The assignment is given well in advance, and in their preparation the members of the team make a thoroughgoing analysis. For purposes of class presentation they divide the areas of discussion among themselves in whatever way they judge to be the most effective; and during the class hour they may expect to be interrupted frequently by questions or comments from the floor. Sometimes students who stand in some traditional awe of their instructors are willing to argue more vigorously with their own contemporaries.

Call Lists

As an aid to stimulating wider discussion a call list may be useful. It furnishes the instructor with a ready name when no one volunteers; it may be used to call the instructor's attention to the peculiar experience or special background of certain students in the area of the current case, so that these students may be given an opportunity to contribute their special knowledge to the discussion; and over a period of time it assures full participation by the class, since it normally will include the names of at least some students who have not spoken recently.

Active discussion, with widespread participation, thrives best in an informal atmosphere. A very important contributing factor is the ability of the instructor to call the members of the

class by name. The instructor, therefore, will be well advised to memorize his class at an early point in the year. The means by which he acquires this command of names, of course, depends on the bent of his own social skills. Important among the aids are photographs, seating plans, and call lists, particularly when used in conjunction with one another.

Grading

Practice in grading class discussion varies widely. Few instructors actually write down grades while the class is going on. To do so diverts their attention from the discussion while they assess each student's contribution. The pace of discussion is retarded, and the grade, hurriedly set, may not represent a considered judgment. From the students' standpoint, furthermore, the consciousness that discussion is being graded interferes seriously with free participation.

Many instructors never grade class discussion at all but depend on accumulated impressions, so that by the end of the term they are able to put down an appraisal for each of a majority of the men in the class. Obviously this plan is well adapted to a small class but not so well adapted to a large class.

An intermediate procedure, considerably used, is for the instructor as soon as possible after class to sit down with the classroom seating plan before him and call to mind the students who contributed appreciably to the discussion during the hour, making some notation in appraisal of each performance. For an instructor who uses this procedure, the call list or some part of it can be made up to include students for whom no impression has recently been recorded. In a class where a few students have been doing most of the talking while a large majority have sat silent, the instructor may choose to limit participation, for at least a part of the hour, to students who have not contributed to the discussion for several meetings past. He may announce flatly that he does not want to hear from anybody who has spoken during the last two or three meetings.

When the students look upon the class period as a forum for working out joint analyses of the case material, the discussion is more vigorous than when they regard it as primarily an occasion for assigning grades. The instructor will, nevertheless, find that from time to time he needs to press the students to think more deeply, to master the facts of the case, to formulate issues, to separate important facts from unimportant ones, to reason logically, to proceed from premise to conclusion, to weigh opposing considerations. If a student's preparation has been superficial or if he is relying on personal hunches or timely interjection of catch phrases, it is possible to indicate to him that there are many things in the case which he has not seen, that more careful preparation would have shown them to him. The manner in which this is done is of some importance. Bearing down with questions as to facts, mathematical calculations, or the reasoning behind a particular conclusion, can achieve the desired result without antagonizing either the student himself or the other members of the class.

The instructor, if he encounters inadequate preparation, needs to make some diagnosis of the difficulty. A second-year student may be sufficiently familiar with the vocabulary of the subject and sufficiently glib to try skating along on the class discussion without having prepared the case himself. A first-year student, on the other hand, may give a superficial analysis because he genuinely does not know how to go about analyzing the case situation and is not sufficiently trained in imagination to suggest other approaches. It is this student, particularly, who will benefit from close questioning ferreting out clues overlooked or lines of

attack which might profitably have been pursued.

Encouragement of Volunteering

Lively discussion is dependent on alert voluntary participation by the class. If the instructor takes to stating his own opinion as to what is correct without paying sufficient attention to the students' views and without leading the students along the path of his reasoning, discouragement of volunteering definitely will occur. Such discouragement will appear also when the instructor seems to be "looking for the answer" and calls on one student after another for a statement of conclusions without giving any of them an opportunity to develop his reasoning. More often than not, of course, there is no one "right answer," and the substance of the decision is likely to be less important than the exercise of decision-making. Along with the decision there needs to go some appreciation of the problems of carrying out the decision and in case of a negative decision — not to accept this offer, not to buy that piece of equipment — some suggestion of a feasible counterproposal.

When the discussion is not running in the direction which the instructor thinks is important for understanding, his best procedure is to listen to what the students are saying. They may be developing something significant which the instructor himself has not thought of, or they may have run into a road block which interferes with their progress. In this latter event, the instructor will either abandon the particular line of questioning or develop some new questions designed to remove the difficulty. If the students have failed to grasp the significance of certain things in the case and so have not seen the issue which the instructor is trying to emphasize, it may be desirable to say frankly, "Let's back off and make a fresh start" or "Let's approach this problem for a moment from a completely different direction." The students need to be stimulated to arrive at a decision for themselves.

If the students are carrying on a vigorous discussion among themselves and advancing the development of the case, the instructor does not need to cap each contribution with an appraising comment, as if he were dealing with a high school student's recitation: "Well done, Jones." He should recognize that students like to feel that their efforts have not gone unnoticed; but he may well find that his most effective comment is one which carries the class a step ahead: "Does the point of view which you have expressed, Jones, then lead to this position . . . ?"

Occasionally, for the purpose of achieving reasonable coverage, particularly if the period is drawing to a close, volunteering may have to be curtailed, and then the instructor needs to be careful to accomplish such curtailment without discouraging the practice of volunteering.

Students' questions likewise present the problem of how much class time can justifiably be given over to them. An instructor may say, "We will take that up at a later class. Will you please hold your question?" and the student may, in fact, find no subsequent class in which the matter is treated; as a result he may come to suspect the instructor of deliberate evasion. In general, student doubts probably ought to be resolved at the time they are expressed, even if the current discussion has to be temporarily diverted. It is always possible to say, "In brief, such and such is the situation" or "At a somewhat later point we have a case which bears on this in some detail; in the meantime, however, the typical practice is thus and so." Only rarely is a question asked which leads so far afield and is so foreign to the general interest of the class that the instructor feels disinclined to devote class time to answering the query and therefore suggests that the student drop in at his office to talk about it.

In the normal class there will be students who are reluctant to speak and students who talk too much. The instructor must be prepared to find both types. The student who wants to talk all the time gets on the nerves of the class, and good students may deliberately refrain from speaking because they don't want to be thought of in the same category. Unfortunately the student who monopolizes the discussion is likely to be somewhat obtuse and unaware that he is incurring disfavor with the class. After a time there will be boredom and inattention and complete loss of interest when this student is speaking, and eventually there will be outright manifestations of displeasure, such as shuffling of feet and rattling of papers. It is up to the instructor to recognize the signs and deliberately to take control of the situation, perhaps by means of particularly intensive questioning consciously aimed at drawing the student out on a limb and disciplining him.

The student who is reluctant to speak likewise represents a problem to the instructor. The reluctance may derive from a variety of causes. Some students have speech impediments; others have impaired hearing and hesitate to speak either because they fear that they may be repeating what has already been said or because they are not sure just what point the discussion has reached. Certain students normally are of a quiet nature and seldom speak unless called on. Others speak freely in small groups but are self-conscious and frightened at the thought of speaking out in a large group.

In any class on a given day there are likely to be a few students who are unprepared on the day's assignment and are in attendance primarily to absorb what they can from the class proceedings, not to make any contribution of their own. Ordinarily the instructor finds it helpful to be informed in advance that these men are unprepared. But in any event their silence is temporary. More difficult to deal with are the students who have a horror of being classed as "eager beavers" and who refrain from speaking because of some notion that by so doing they are improving their personal standing with their classmates. Here the instructor needs to recognize that a powerful social pressure is at work and that considerable tact and patience on his part may be needed to bring these men into active participation.

PREPARATION TO TEACH A CASE*

Of special interest to the instructor, and particularly to the instructor embarking on the case method for the first time, is the question of the work which he or she needs to do on a case prior to the class period. This question relates not only to the analytical procedures which the instructor may need to employ in preparation for teaching but also to the kinds of notes or other supplementary material that may be useful for conducting the discussion. The following observations and suggestions are summarized from a memorandum, "Case Instruction for the Beginning Instructor," prepared by Robert W. Merry in his capacity as a member of the committee working on the general survey referred to in connection with the paper "Use of Case Material in the Classroom."

To any case-method instructor the importance of his preparation for class is fully apparent. To the new instructor, however, it may come as something of a surprise that his task in preparing for a case class is more arduous than that of the students and more arduous also than that of a lecturer. If he were lecturing, the instructor would be the one to determine what material he would present and in what order he would present it. In embracing the case method, however, he has surrendered his sovereignty and yet undertaken to maintain control over the discussion. It would be a mistake for the new instructor to assume that he had only to read and reread the case and then go into class and ask one or two leading questions. Rather he must be so thoroughly conversant with the case that he is ready to deal with any angles which the class may introduce, to modify his approach at any time, or suddenly to change his outline in accordance with new ideas which may not previously have occurred to him.

Case teaching is a highly individualistic art, and the methods and approaches of one instructor seldom can successfully be appropriated by another. Every seasoned instructor develops an approach of his own. Each new instructor has to do likewise, and there are no general rules for him to follow. The instructor about to teach a case class for the first time, however, may be slightly at a loss as to what form his preparation should take.

The first step in the instructor's preparation of a case is to master the facts. The instructor needs to go over the printed case again and again, making outlines, marginal notes, and written summaries of essential details. If there are figures in the case, he will make many calculations, not only the ones which he himself believes to be correct but also others, which he anticipates that the students may put forward as appropriate and significant. He will scrutinize the apparent issues to make sure that they are the real ones. And if there are important subordinate issues, he will recognize that some questions probably will have to be settled before others. He may find it helpful to develop a conceptual framework which will show how the several pieces of the puzzle fit together.

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Up to this point, the instructor's work on the case has roughly paralleled that of the students. The task has been to acquire a thorough familiarity with the facts, the figures, and the issues. Now the instructor may find it advisable to make a fresh start. In some instances he will at this stage need to consider the specific learning objectives toward which he wishes to point the case discussion. And here some appraisal of the relation of the major issues of the case to the instructor's course outline is appropriate. With an eye on the position of the particular case in the course outline, the instructor may wish to lead the students to emphasize some issues more than others. Also as a specific aspect of this consciousness of a course outline there is the frequent desirability of providing a transition from the case discussed at the preceding class meeting.

After these preliminaries the instructor needs to view the case itself as a whole, assessing it in terms of the principal areas for exploration and discussion, considering the relation of one to another, and devising key questions to lead into each of them. He may wish to give considerable care to the wording of these questions. By foreseeing the various avenues of connection the instructor can be better prepared to effect transitions from one issue to another, as well as to guide the class into the critical areas for discussion. Next he will note the answers that the class probably will offer to these key questions on the basis of the materials in the case, and the reasonable answers he will follow to their logical conclusion. Where weighing of considerations is involved, he will list the pros and cons and undertake to balance them. And in each area he will make the pertinent mathematical calculations. By these means he will develop what may be termed a teaching outline, which probably will differ markedly from his initial analysis of facts and figures and which may well cover several pages of foolscap.

In the classroom the instructor who is teaching by the case method for the first time may be inclined to adhere closely to this detailed teaching outline. He has put a great deal of thought into developing a program for the class meeting, he has followed through all the lines of argument which he thinks the students may reasonably offer, and he is pretty well convinced that the class discussion ought logically to develop according to his script. If the discussion should deviate from the course which he has laid out, he will be tempted to try, by narrow and specific questions, to set it back on the path in order to make sure that every point in his outline is accorded proper consideration.

In actuality, rigid adherence to a predetermined line of development may make for a discussion notably lacking in freshness and spontaneity. If, as they are put forward by the class, arguments and observations on the case are forced into the instructor's own outline, the students may soon be deterred from presenting an independent development of the case. To narrow questions they will give narrow answers, and the quality of the discussion will deteriorate rapidly.

After he has experienced the disappointing class discussion which results from an attempt at rigid control, the new instructor may resort to a procedure which involves almost no control. He will put to the class at the outset the major question to be discussed and will permit the students to bring up whatever points they choose, in whatever order they see fit. This procedure also entails difficulties. There is the danger that several important aspects of the major issue of a case may be overlooked if the students move on too rapidly to another issue. The discussion of one issue may be superficial or unsound because its development depends on another issue which has not yet been discussed. The treatment of points at random, following no logical system or pattern, is likely to have the result that at the end of the hour a student has no clear concept of an appropriate analysis of the case.

Something between these two extremes of tight control and no control at all is ordinarily called for. And the new instructor may find that he can most readily achieve this objective if he can free himself from close reliance on his notes. Having worked out his detailed teaching outline, he may do well to put it aside in favor of a mere list of the critical areas — such a list as may fit on an index card or two, which the instructor may glance at during the class hour simply to make certain that no important areas have been slighted. For the details of development he will rely on the thoroughness of his own preparation.

The instructor's preparation frequently will need to go beyond the bounds of the case itself. Many cases include a considerable body of technical detail, which may relate to an industry, a process, a machine, an institution, an instrument, or the like. Usually enough facts are given to convey the significant data. Sometimes, however, students request more information; and they may ask for an explanation of terms used in the case which are not clear to them. The instructor needs to anticipate student questions of this type and to make provision for them, certainly by taking steps to become well informed himself and also, wherever possible, by arranging for showings of industrial movies or for demonstrations, or by making available for inspection the items of merchandise or pieces of equipment which are under discussion.

In planning his strategy the new instructor ought not to overlook the potentialities of the chalkboard as a teaching aid. He will turn to it naturally to set down figures. But he will find it useful also for such things as listing the pros and cons brought out by the class, or jotting down notes as to major areas for discussion, or developing steps in a program of action to carry out a decision. When analysis of a case entails calculations, these very probably will need to be put on the board. Ideally the instructor will proceed by getting the students to tell him what figures to write, not by standing at the board and transcribing his own computations. But it will help him to make a quick mental verification if he has his own calculations before him. Hence he will do well to have with him the papers on which he has done his figuring. He may wish also to put on the board, as they are brought up in class, a series of headings which will indicate the major areas of discussion. These need not conform precisely to the instructor's own outline, but they are likely to approximate the headings noted at some point in his outline. Hence it may be useful for the instructor to devote some care to the phrasing in his own notes, and perhaps to underline in red the principal captions in the list to which he has reduced his teaching outline. Among the papers which he carries to class the instructor may also want to include some notes from which to make a summary at the close of the class hour. Generally, however, the instructor should not be dependent on his notes.

In a course which has previously been taught according to the case method, or in a large course divided into sections and taught by several instructors, the notes of other teachers presumably will be available. After he has completed his independent preparation of the case, the new instructor may find it reassuring to refer to these. They may suggest fresh lines of approach or new ideas, and to this extent they will be useful. The new instructor may also achieve a feeling of greater self-confidence if he talks over the case with other instructors. The point can scarcely be overemphasized, however, that no instructor, under the case method, can effectively substitute another's notes for his own. Experience suggests also that notes prepared in an earlier year cannot be reused intact. Fresh preparation is essential each time. Old notes are useful for reference, and they may serve to recall to mind certain calculations which need reworking or certain difficulties which developed on an earlier occasion. But modifications will almost always suggest themselves, and fresh study and new analysis are essential each time the case comes up.

Nevertheless, for purposes of facilitating future use of the case, the instructor may find it advantageous to develop the habit of jotting down some notes as soon as possible after the end of the class hour, touching such matters as any corrections needed in the case, possible changes in the appended questions, new lines of thought or different methods of calculation brought out by students, a possible change in the position in the outline, and so on. Such notes should be included in the case folder, to be reviewed by the instructor when he next organizes his case outline for a term and when he comes again to the preparation of the specific case.