TEACHING NOTES FOR CASES

Much attention has been paid over the years to the researching and writing of cases, but little has been said about that important case partner, the teaching note. This neglect has probably come about because many case developers do not prepare teaching notes. Either they stop writing when they have finished a case, or if a publisher insists on having teaching notes, the case developer turns the teaching note job over to a research assistant. Almost everyone who has written teaching notes will agree that they are a chore. The fun part of case-writing is in the case. Yet teaching notes are a vital part of the process of preparing a piece of material that can be used effectively as an educational tool.

Case-writing is a complex art form in which teaching notes play an essential role. When an instructor looks at a case without a teaching note, it is like looking at a landscape artist’s carefully prepared palette without having the actual picture. Most artists could paint a landscape of some sort with the palette, but knowing what picture the artist would paint completes the creative process for us.

Not all cases are written to be used in the classroom; some are written as part of a research effort and serve to capture the essence of a particular reality—to present, in a sense, the raw material on which research analysis will be based. Although some of the same case-writing techniques are used with such research cases, their design and purpose are different. Where research cases may include analysis, for example, a teaching case gives the students that task. We are concerned here with notes for cases prepared to be used as teaching material.

A teaching note is addressed to and designed for the person who will use the case. Though the format, style, and content may vary from one note to another, the main test of any teaching note’s quality is how helpful it is to the people who use or are thinking of using the case.
Purposes

Teaching notes can help instructors in four ways:

1. Teaching notes help case teachers in their selection of cases to use in a course. To do this, the notes should have enough information about the case to give an idea of its scope and intended teaching objective.

2. Teaching notes help other case teachers use the case. For this, the notes would contain an analysis of the case, some proposed teaching questions, and perhaps suggested sequencing of the classroom discussion.

3. Teaching notes can show how a case fits with other cases in a course or with a series of cases within a course. Is a case best used, for example, to introduce a subject or after students have become familiar with the area?

4. In instances where several instructors teach the same course, teaching notes can help them synchronize their coverage of the important material and analytical techniques.

Teaching notes are not the same as what is commonly found in a solutions manual. A solutions manual generally provides the “answers” to problems and implies that there is a single “right” answer. Cases are usually too complex to have single right answers, although there may be good analysis and bad analysis. Often the teaching objective of a case has more to do with this analytical process than with any specific answer. Thus, preparation of teaching notes is a far more complex process than that of providing solutions to problems.

Moreover, teaching notes are concerned with how a case might be used in a classroom or other educational setting. A solutions manual usually is not. With cases, the teaching strategy is important; it is also variable. An effective strategy may depend, for example, on who the students are, their level of experience and competence, the size of the group, the time available, and where the case is used in a course. Thus, a case teaching note has a wide range of important matters it must discuss in order to be helpful, of which the specific “solution,” or results of analysis, is only one.

Content

The content of a case teaching note depends on the general purposes of such notes and on the specific purpose of the particular case or series of cases. Possibilities include:

1. The case’s objective, its relationship to other cases, and where it might fit in a course or training sequence
2. A short background or synopsis statement
3. Issues and teaching questions, for use in assigning the case or in a class session
4. Analysis of or commentary on the questions
5. Class strategy—useful sequencing of questions and probable student response; opportunities for different teaching methods

6. The sequel, or what happened next—if appropriate, teaching notes may include a B case describing subsequent events, or they may simply supply information on the outcome of case issues.

7. The case’s relationship to any underlying theory base, conceptual framework, or analytical methodologies

8. Suggested technical notes or supplementary readings that could be assigned for student study.

The intended audience for the notes will influence the appropriate content. If the audience is someone in the process of selecting cases, the most important content would be items 1, 2, and 3—the objective, synopsis, and teaching questions. Indeed some published teaching notes contain no more than that. Such notes are helpful in preliminary case selection but do not provide much help to an instructor who has decided to use the case. (They also provide little help to students if the notes should happen to fall into students hands, and for that reason, some case writers are willing to distribute only those kinds of notes.)

A comprehensive set of notes, however, should contain an analysis of the case issues. For most cases there is not a single “correct” analysis, although some analyses may be clearly wrong or unrealistic. (The note writer who has had experience teaching the case may want to warn the reader of attractive but incorrect approaches students may make.) In many instances the analysis will require exhibits prepared expressly for the notes. When the note exhibits draw information from different sections of the case, it is helpful to show the source. If the case has been taught previously and a good student report has been prepared, including that report may help to illustrate a competent response to a specified assignment. But such a report should not be all the notes say about analysis, for usually different tacks can be taken or assumptions reasonably made about the case situation, which a comprehensive note should cover.

In addition to comments on the case’s analysis, a good teaching note will contain suggestions on teaching strategy—including key questions, blackboard layout, and a time schedule. Such suggestions will help a teacher see beyond sound analysis to stimulating the learning process in the classroom.

The richer the case, the more valuable the comprehensive teaching note. Some cases capture a major area of management analysis and give rise to teaching notes that are much longer than the case itself, sometimes even providing the beginning stages of a published article or monograph. Other cases offer opportunities for a variety of teaching methods, such as role-playing, negotiations, or computer analysis. Good teaching notes provide suggestions on different ways to use the case and sometimes comment on actual experience.
Writing Teaching Notes During the Case-writing Process

Another reason for the preparation of teaching notes is their benefit to the case writer as well as the user. Developing teaching notes of some sort while the case is being written will almost always improve the case itself.

When developing a case, especially a field case, the casewriter is engaged in a number of activities, often at the same time. The case writer is gathering information, shaping the case’s purpose, smoothing the pathway to release, recording statements to be used as quotes, and organizing the sequence and hierarchy of case presentation. Experienced case writers know that one doesn’t get a good case by collecting a bunch of data and then seeing what it means; one must do an analysis at the same time that the case is being written. Therefore, along with all the other activities just cited, case writers ought to be thinking through an analysis of the material and how the case might be used in class. The discipline of setting these ideas down as “preliminary teaching notes” helps the case writer be sure that all the necessary information is in the case. One experienced case writer has said that the time to write a case’s outline is in the company parking lot as you leave, to which one can add that it is also the time to outline an analysis or preliminary set of teaching notes.

Many faculty case writers say, “I’ll write the teaching note after I’ve taught the case a few times. The case may need some modifications, and by then I’ll know how it works in the classroom.” Then sometimes they write the notes and sometimes they don’t.

They are right that many cases benefit from modification after being taught. Indeed, case writers should expect that notes will evolve over time. The classroom often provides unexpected ideas on teaching strategy, and the repeated interaction between students and the case will produce new subjects for the notes to discuss. Even for classic cases, it is certainly no crime to go back to the notes and fill them out with new insights. Preparation of notes should not be put off beyond the time of case-writing, however. While it is important to recognize that notes can seldom be considered final, it is equally important to start work on teaching notes even before the case is finished.

Illustrative Sections from Teaching Notes

Here are ten sections from a number of teaching notes illustrating the variety of approaches and subjects notes may include.

1. The opening of a teaching note that gives important information for a teacher in the process of selecting cases. (James G. Clawson)

   Topical Areas

Objectives/Course Placement/Target Audience/Time to Teach

Objectives: As a result of working through these materials, audiences of all ages should be better able to think about and apply concepts recently put forth in adult life and career stage developmental theory and research. Students should gain an increased ability to relate the concepts of the theories to what they observe in themselves and in others and to what they hear in conversation with other managers.

Sequencing: I have used this set of materials generally as a capstone—to a semester-long graduate level course on career management and to one- or two-week executive seminars on a variety of topics. It might be used as an introduction to the general area/module on adult career and life-stage development, but since it covers an entire life span, it is less useful as an illustration of specific periods of life and career development.

Audience: I have used this with MBAs, middle managers, and senior managers. Each group, of course, focuses on some different topics but each have found useful ideas in the discussion.

Time: I usually teach these materials in 80- to 90-minute blocks. One could use them in longer blocks, probably in shorter ones.

2. An early section of a note in which the case’s objectives are described in the context of a finance course. (William W. Sihler)

Discussion Outline

If the class does not need as much drill in financial analysis, more time will be available for discussion of the company’s history at the beginning of the class. Similar characteristics will determine the degree of detail emphasized in the forecasting. If the case is used early in a financial curriculum, for which it was designed, but after the students have been exposed to a reasonable degree of accounting, the case is a useful vehicle for showing the relative precision of studying the past (as is done in accounting) versus the relative imprecision which may be appropriate when preparing forecasts under very uncertain conditions. At the same time, and in contrast to the general imprecision which is appropriate for the forecast in Hydropress’s circumstances, it is often useful for the instructor to direct attention to the details in areas such as accumulated depreciation and retained earnings to ensure that the students have mastered the niceties of forecasting those accounts. Reinforcement of the importance of internal consistency in financial forecasting cannot be overemphasized, particularly at an early stage in a financial course. Finally, the forecast shows dramatically the additional financial requirements brought about by a high rate of growth in sales. This can be used to reinforce lessons
raised in the “Figures are Revealing” case and particularly in the Winchester section of “Everett Industries.”

3. A teaching note that begins with a brief synopsis followed by discussion questions. (E. Raymond Corey, Harvard)

The explicit issue in this case is in which, if any, of three proposed locations should Wychoff build new corrugated paper box plants. Wychoff is a large integrated producer of pulpwood, paperboard, corrugated sheet, and boxes. Going beyond the immediate issue, the case provides a basis for discussing forward integration as a marketing strategy.

Discussion Questions

1. What questions of product/market selection do you see?
2. Why invest in any new box plants when projected profits are so low?
3. What considerations are relevant in selecting new plant locations?
4. Which of the three proposed new plants should be approved?
5. How should box plant performance be measured? Is it “fair” to transfer paperboard to box plants at full market prices in calculating box plant profitability?
6. Should Wychoff sell a larger portion of its output as corrugated fiberboard or as container board? Should it try for more high volume business?

4. A note that states a brief objective, followed by a synopsis and a suggested assignment. (Robert D. Landel)

Objective

To evaluate the inventory management effectiveness at the Memphis and Lynchburg operations and to determine whether the Memphis distribution center should be maintained.

Synopsis

Goods for all eight divisions of The ChapStick Company are manufactured or purchased by the Lynchburg operation.

Lynchburg also serves as the main center of distribution with all administrative functions handled there. But a second distribution center in Memphis is maintained for two of ChapStick’s divisions: Blair and Wade products. The president, in an effort to cut costs and increase profitability, wants an evaluation of the costs and
benefits of maintaining the Memphis distribution center and any recommendations for operational improvements of the inventory management.

**Assignment:**

1. Evaluate the performance of the Blair and Wade divisions and of the ChapStick Company.
   
   Compare ChapStick’s profitability (ROA, ROE, ROS) with that of A.H. Robins.

2. Calculate the cost savings for combining the two distribution centers into one center in Lynchburg.
   
   a. Calculate the payback period to ChapStick for a “reasonable” case.
   
   b. Use sensitivity analysis to determine how long this payback could be in the worst case.

3. What “nonmeasurable” costs and benefits need considered?

4. What recommendations can you make to improve inventory management at the ChapStick Company?

5. What should ChapStick do?

5. Excerpt from a teaching note describing the proposed analytical approach and conclusions that can be drawn. (John L. Colley, Jr.)

**Analysis**

The problem with the greatest short-term importance was cash flow, or the ability of the division to internally fund its operations and capital expenditure plans. To forecast cash flows for 1980, financial statements for 1979 are necessary. These can be developed using the 1978 financial statements included in the case.

The key to forecasting 1979 financial statements is the assumed growth rate for each of TMTD’s three product lines. Growth of 32% in machine tool sales was expected in 1979. This is substantially higher than the 10% to 12% composite growth of the prior five-year period. TMTD’s parts and services business had demonstrated a composite growth of 80% over the past five years and the indications were that such growth would continue through 1979. Based on this information, sales growth of 32% was applied to the machine tools and numerical controls lines, and 80% to the parts and services line for 1979. Assuming the above growth rates and unchanged asset turnover, profitability and working capital relationships, balance sheets, income statements, and cash flow statements were prepared for each product line. These pro-forma financial statements are shown in Exhibits 1, 2, and 3.
Considering return on investment, parts and services was by far the most profitable product line, followed by machine tools and numerical controls. The composite cash drain of $10.5 million resulted from the growth of all three lines in excess of the rate which they could internally sustain. Cash flows and ROI should be considered in synthesizing sound growth objectives for 1980. Also to be considered are the markets for each product line and stages of their respective product life cycles.

6. **Part of the analysis section of a teaching note in which both sides of each alternative location are presented: favorable and unfavorable. (E. Raymond Corey, Harvard)**

*Which of the three proposed new plants should be improved?*

According to the following analysis, East Tennessee appears to be the only good opportunity for a new plant location.

**East Tennessee**

**Favorable factors:**

- The usage/shipment ratio is 1.41.
- Wychoff already has sales in the area of 141 million square feet.
- Business in the area is relatively high margin.
- Some accounts such as American Uniform and Magic Chef have high sales potential.
- The Montgomery and Atlanta plants could utilize capacity made available to take on some higher profit business.

**Unfavorable factors:**

- The prevailing price per thousand square feet is relatively low: $17.49 (but this doesn’t indicate relative profitability).
- It would take out 8% to 9% of Norfolk’s volume, and this plant is now operating at only 80% of capacity.

7. **A section of a teaching note in which alternative analytical approaches are described, as well as some common student mistakes. (William W. Sihler)**

Second, it is important that the class understanding of the relationship between profit after tax and retained earnings is reinforced. Occasionally, a novice forecaster will use the retained earnings figure as a plug to make the balance sheet balance.
In fact, the Hydropress case affords a useful opportunity to discuss the appropriate account to be used as a plug figure. A number of alternatives are available. First, the bank loan may be held at its existing level of $3.56 million (or increased to its maximum of $4 million). After the estimation of all assets including a minimum cash balance, a resulting “plug figure” for additional loans is generated. Second, a variation of this alternative is to plug for the bank loan needed in its entirety without discriminating between the existing arrangements and additional needs. These first two alternatives both have the common characteristic of explicitly establishing an operating cash balance. The second alternative was the one used in creating Exhibit C, where a cash balance of 5% of sales was chosen as being consistent with the company’s historical experience.

A third alternative for the development of a plug figure is to allow the cash balance to run negative given either of the two assumptions about the existing lending relationship. In other words, holding the loan at either its present or allowing it to increase to its maximum, all assets and liabilities except cash are specified. Cash is then either positive or negative depending upon whether sources are greater than or less than requirements for funds. The disadvantage of this approach is that the analyst may forget the minimum cash requirements when estimating the funds needs. For example, if Exhibit C had been prepared on this basis, the cash balance in 1974 under a 20% growth option would be negative approximately $4.7 million. This figure might encourage the analyst to think that the company could manage with only a small increase in the maximum line available. Such a conclusion would overlook the company’s requirements for a cash operating balance of nearly $2 million, which raises the total needs to more than 50% greater than the present maximum line.

Obviously, the results should be the same regardless of which forecasting convention is adopted provided that consistent assumptions are made. The selection amongst alternative formats is entirely one of convenience, although requiring the specification of operating cash may lead to fewer errors on the students’ part.

8. **Part of a teaching note that describes typical student comments, noting how well they are rooted in case evidence. (Derek A. Newton)**

*How do you account for the circumstances leading to Marsh’s termination?*

Some students revert to their original position that Marsh should never have been hired. Case evidence for this point is lacking although Marsh’s behavior certainly raises speculations. Some students argue that the company’s policies are suspect (e.g., Why did Marsh keep getting raises, letters of congratulations from the president, etc.?). Again, company policy certainly seems to be a contributing factor. Most students, however, are eager to dissect the behavior of the individual managers.
Meredith

Most students recognize that Meredith was not a demanding manager. By his failure to establish proper work standards and attitudes toward the job, he undoubtedly contributed to Marsh’s failure. Note also that Meredith did most of the talking, finding out little about how Marsh felt about the job. Marsh’s improvement, therefore, was simply “going through the motions,” and rapid erosion of performance could be expected as soon as the “heat was off.”

9. Part of a teaching note that describes how a role-play exercise can be used with the case. (William Rotch)

Purpose of the Case

The case provides a vehicle for exploring various ways service costs can be distributed to service users. Analysis of the case shows a number of ways in which the distribution method can or should be linked to the purpose of the distribution. Choice of method, then, is strongly influenced by objectives.

A Brief Review of One Class Discussion

Before class I assigned designated students to take the roles noted below:

Cabot Davis, Museum Director
Jill Gray, Financial Officer
Bill Calder, Operations Manager, Support Services
Captain Mark, Head of Security
Bob Rust, Manager of Purchasing and Printing
Elementary School Business Manager
Art School Business Manager
Drama School Business Manager
Research Center Business Manager
Tilford Burke, Museum Director’s Assistant

As the assignment said it would, the class convened as a meeting of those with assigned roles, with Cabot Davis as chairman. The student chosen to be Cabot Davis was smart and skillful in running the meeting. She started by getting the group to agree on objectives for the cost distribution system. That took about 20 minutes. Then she directed their attention to those service areas that involved the largest costs. This discussion lasted about 30 minutes and most of the important issues came out, though the control issues were not fully explored at this stage. I then thanked her for doing a good job as chairperson and took over direction of the class for the last 30 minutes.
By looking in more detail at several of the areas we were able to identify the control issues more specifically and blend the several concerns relating to the accounting process, the control process and the qualitative aspects of the non-profit setting. The printing–purchasing area was a good one to deal with since it was understandable and included the three alternatives of central printing, decentralized printing and getting it done outside.

Heating and grounds maintenance both involved the possibility of using a two tier charge: one tier for capacity (fixed ratio for the year) and one for actual use (based on each month’s usage). As shown in Exhibit 1, a two-tier charge system has the capacity to make the charge approximately responsive to actual usage.

The class was also interested in exploring some other, more qualitative questions. Should there be, for example, a collective interest of the group of institutions? How might it be defined? Should they lean on the drama school to pay its share, whatever that might be? Should they be concerned about its financial survival? The institutions seemed to have separate interests, each with its own board of governance, but there were also some linkages and interdependence.

10. A teaching note that lays out a suggested sequence of topics for class with an accompanying time schedule. (Sherwood C. Frey, Jr.)

Class notes:

A. (time 0) Review of the Situation

Who are the parties of interest in this situation? I generally start with someone in the class who has some legal training. Gradually draw out the information that is shown in Exhibit A.

* * * *

B. (time 5) Review of Schilling’s Analysis

What can we conclude from Schilling’s analysis? How do you interpret the results on page 5? What happens if you include the possibility of appeals? The discussion can be focused by taking two specific probability assessments: a 50% chance of Coughlin winning, and a 90% chance.

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C. (time 20) Consideration of the Bard and the Tolemite Position

If it’s attractive to settle outside, to whom shall we speak and about what? Since the assignment makes clear the fact that the license is exclusive and thus BARD is in the driver’s seat, those students who have not looked at the analysis from BARD’s point
of view will suggest speaking to BARD. Select one of these students. What are BARD’s interests in this case? Suggest taking off our Coughlin hat and putting on our BARD hat.

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D. (time 50) Proposals for Coughlin

With these thoughts in mind, let’s get back to the original question. What should we do as Coughlin? With whom do we have mutual interests? How should we approach them? The obvious response is Tolemite, but there are two important issues.

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E. (time 65) Final Remarks

Here’s what actually happened. Coughlin was ready to propose a settlement of 8% based on Schilling’s analysis. Then they thought of the analysis from Tolemite’s and BARD’s points of view. Their first action was to send a letter to Tolemite (Exhibit F). Read the paragraphs marked in the letter aloud and paraphrase the analysis, highlighting its relation to the classroom discussion. There was a meeting with Tolemite, who played dumb and refused to enter into any discussions. Then they approached BARD and pointed out the costs of a protracted legal battle. Eventually there was a settlement for 5%. Unfortunately, we don’t know what was worked out between BARD and Tolemite.

There are two morals to this story. In competitive situations, “Know thyself but, more importantly, know thine enemies” and, secondly, “Out of little trees, big insights grow.”