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THE USE OF PROGRAM NAMEX IN TEACHING THE ACCOUNTING FOR NONMONETARY ASSET EXCHANGES

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Accounting for the exchange of nonmonetary assets, as prescribed by APB Opinion No. 29, can be quite confusing to accounting students. The number of possible combinations of situations and their treatments can be seemingly endless for the student. These situations include exchanges where the fair market value of the assets may or may not be known, gains or losses may exist, cash boot may be given or received, and the assets may be similar or dissimilar. Without a systematic procedure of analyzing a nonmonetary asset exchange, students frequently resort to memorization of example problems, and they become so entangled with details that they cannot handle a situation that is slightly different from their memorized example problem.

Capettini and King (1976) and Nikolai (1977) presented just such sets of procedural rules along with examples, which have been used in our classes with considerable success. However, we have found that many students still view these examples as isolated or unrelated situations to be memorized. Consequently they have difficulty applying the basic concepts and the procedural rules to new situations.

We have taken two steps to solve this problem, First, we developed a comprehensive flowchart, Figure 1, incorporating the presentations of both Mikolai and Capettini and King. Second, we have written Program NAMEX, a program based upon the flowchart in Figure 1. Program NAMEX is for student use on interactive terminals.

Accounting students are familiar with the use of flowcharts from their computer programming and accounting systems courses. Because of this familiarity, they readily relate to the flowchart as a systematic means of presenting this type of material. The flowchart approach not only provides a detailed analysis of each individual outcome in the accounting for nonmonetary asset exchanges, it also permits the student to see all combinations of situations at one time. The impact of this macro-view of nonmonetary asset exchanges on our students has been very favorable. Suddenly they see the problem as limited instead of limitless in terms of the combination of situations, outcomes, and accounting treatments.

Program NAMEX builds upon the student's familiarity with flowcharts in the teaching of accounting for non-monetary asset exchanges. Program NAMEX was written in such a way that it must be used in conjunction with the flowchart in Figure 1. The program does not automatically prepare a journal entry, such as those shown in the illustrative examples, when the student inputs data for a particular situation. Instead the student must make the correct branching decisions and provide inputs at each decision point in the flowchart. Program NAMEX is designed to ask the

student for branching decisions and will not provide a solution unless the student provides the correct input at the decision nodes. If an incorrect decision is made at a branching point, the student is told that the decision is incorrect and then he is asked to try again. Program NAMEX also allows students to answer the 'what if questions which frequently arise in the classroom. By changing one or more of the inputs from the original problem, a student, with Program NAMEX, can answer his own questions concerning the possible different situations which might arise in the exchange of nonmonetary assets.

Program NAMEX requires the student to function on a level of learning that involves more than memorization. The student must perform so that both application and analysis levels of learning are utilized. The program requires steps that involve such mental operations as classification, deduction, and comparison. As the program is executed, understanding is facilitated by activating those mental operations.

We have found the best approach in using Program NAMEX involved two steps. First, the flowchart and illustrative examples are distributed to the students as the reading assignment is made on nonmonetary asset exchanges. Second, once the students are familiar with the flowchart, homework problems are assigned which are completed using Program NAMEX.

The following abbreviations are used in Figure 1:

FMV_s Fair market value of asset surrendered.

FMV_a Fair market value of asset acquired. a

BV_s Book value of asset surrendered.

BV_a Book value of asset acquired.

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FIGURE 1

NONMONETARY ASSET EXCHANGES FLOW CHART Start Record Asset Acquired at Ιs Book Value of Asset Sur-Either Cash rendered. Recognize no FMVs or FMVa Boot? Gain or Loss. known? Yes Yes Record Asset Acquired at If Either FMVs or FMVa is Book Value of Asset Sur-Known, One of the Following rendered Plus Cash Boot Given or Minus Cash Boot Relationships is Assumed. 1) FMVs = FMVa Received. Recognize no 2) FMVs + Cash Boot = FMVa Gain or Loss. 3) FMVs = FMVa + Cash Boot Record Asset Acquired at Book Value of Asset Surrendered Less Loss (Fair Cash Loss = Amount FMVs >BVs? by Which BVs Boot? Market Value of Asset Exceeds FMVs Acquired). Recognize Entire Loss. Yes Yes Record Asset Acquired at Gain = Amount Fair Market Value of by Which FMVs Asset Acquired. Recog-Exceeds BVs nize Entire Loss. Record Asset Acquired at Cash Similar No Fair Market Value of No Boot? Assets? Asset Surrendered. Recognize Entire Gain Yes Yes ⁶Record Asset Acquired at Record Asset Acquired at Book Value of Asset Sur-Fair Market Value of Asset No Cash rendered. Recognize no Acquired, or Fair Market Boot? Value of Asset Surrendered Gain. Plus Cash Paid or Minus Yes Cash Received. Recognize Entire Gain ⁸Record Asset Acquired at Cash Book Value of Asset Sur-Paid or rendered Plus Cash Paid. Received? Recognize no Gain. Received Record Asset Acquired at Book Value of Asset Surrendered Minus Cash Received Plus Partial Gain. Partial Total Cash Boot
Gain Gain (Cash Boot Gain