

TOY CAR DEPRECIATION EXERCISE

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ABSTRACT

The purpose of this session is to demonstrate how a simple experiential learning exercise can have multiple positive effects. The use of a toy car in the teaching of accounting depreciation concepts is used for the demonstration. The presenters will discuss the implementation of the exercise, possible pitfalls and the numerous benefits of the exercise.

INTRODUCTION

While many teachers conceptually agree that experiential learning most often has a stronger, deeper effect on the student's ability to understand and assimilate ideas, many of us are put off by the task of designing such experiences for our classrooms. We often think these activities and exercises must be elaborate and very detailed.

This exercise illustrates how a simple, hands on activity can enhance a student's learning process using the accounting concept of depreciation as the target. Depreciation is often a difficult idea to master because it is so conceptual and because students without real business experience can not relate it to anything they are familiar with.

Purpose of the Exercise

Besides mastering the topic of depreciation, there are a number of other goals to be achieved in this activity. First, students collaborate in-groups and develop group decision-making and team building skills. Second, students realize that many business decisions involve judgment and estimation based on imperfect knowledge so critical thinking is essential to perform the exercise. Third, the teacher empowers the students to take responsibility for their own learning of this topic.

Use of the Exercise

Students assemble into small groups of 3-4. Each student is given a small, toy vehicle (luxury cars, vans, mid-size cars, etc.) which has a price tag attached. This price is the only known quantity in the exercise. The group must then decide the other two components of a depreciation calculation – residual value and useful life. Since these are

estimates and are relative to the business' policies and goals significant discussion takes place on these points. For example, two groups may have very similar delivery vans but one group decides that delivery vehicles for their company are replaced every two years, whereas the other group's policy is to drive the vehicle until it needs major repairs (possibly 4 or 5 years).

Once these two estimates are made, the groups are asked to calculate depreciation schedules using several different methods including straight line and double declining balance. Each group's solution will differ because the three components of the calculation differ.

Finally, the groups are asked to assume that they sell the vehicle before it is fully depreciated and to make the calculation to determine any gain or loss that would be recognized at that point. Again, this is a decision point, so answers will vary.

Conclusions

This simple experience has many advantages over the traditional lecture and problem solving by the teacher. Students collaborate in-groups to come to a common, reasonable decision. This may be one of the first times in their business coursework where they have some realization of the cooperative nature of business and the importance of decision making as a team. As a team, the students learn from one another and teach one another. This is reinforcing for the students that understand the concept and instructional for those who are still learning.

This exercise has more of an element of "realism" than a word problem. Students physically hold the car, examine it and make decisions about its usefulness to their business. They develop a sense of ownership not possible when they read a problem "about" an asset and its depreciation.

One of the major benefits of this activity is that students realize there is more than one "right" answer and that each group develops its own answer. They subsequently learn that there is ambiguity in this answer, even if the calculation was precise.

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Finally, by becoming actively involved, students consequently participate more in the class discussion that follows; they have their “own experience” to draw on to add to the class’ discussion. They have fun while learning which contributes to a positive result. It’s a win-win situation, students learn and have fun!