

Trends

Cognitive Diversity

**By Belverd E. Needles, Jr., Ph.D., CPA
Editor**

In a previous Trends Column (January 2006), I addressed four characteristics of our students that are sources of dissatisfaction for accounting professors:

- Increasing numbers of students
- Diverse cultures among our students
- Increase in oral and visual learning
- Increasingly complex life situations

We all know that our classes are more culturally diverse. Nationally, approximately 30 percent of undergraduate students are classified as minorities. Further, the figure approaches 50 percent when students classified as Caucasian are first generation students from countries in Eastern and Central Europe are included. In the 2000 census, 47 million people--18% of all U.S. residents--reported speaking a language other than English at home, up from 14% in 1990. Further, the Chronicle of Higher Education reported in 2006 that “only 51 percent of last year’s high-school graduates who took the ACT examination had the reading skills they needed to succeed in college or job-training programs, the lowest proportion in more than a decade...”

The type of diversity described above represents a significant challenge for beginning accounting teachers. However, I submit that another aspect of diversity is equally challenging. I refer to this diversity as “cognitive” diversity. This type of diversity is not as apparent on the surface but is very challenging to the accounting teacher. When I ask faculty who attend our conferences and workshops to characterize their students, I commonly hear one of these statements:

- My students are typical younger undergraduates.
- My students are older students.
- My students are mostly full-time students.
- My students are mostly part-time students.

These generalizations are true of instructors from both two-year and four-year schools. The implication is that the students in their classes are fairly homogenous, or at least dominant, in terms of age and study. The facts are that most professors’ classes consist of a mixture of younger and older students and full-time and part-time students. Figure 1 shows the distribution of full-time undergraduate students at both two-year and four-year schools. Note that among full-time students:

- 17-20 year-olds make-up most of the students at both four-year and two-year schools but that there is a mixture of older students

Figure 2 shows the distribution of part-time undergraduate students at both two-year and four-

year schools. Note that among part-time students:

- 25+ year-olds make-up most of the students at both four-year and two-year schools but that there is a mixture of younger students

It is striking that the distribution of ages at both two-year and four-year schools is very similar. Conclusions may be drawn that professors at two-year and four-year schools face similar challenges and that a key determinate of these challenges is the composition of full-time and part-time students in the class.

The question may be asked: Why is the composition of full-time and part-time students important? The answer lies in the age distribution among these students and their relative cognitive maturity. Our classes are likely to be cognitively diverse if they have younger and older students in the same class. Research in psychology shows that, on average, students do not reach cognitive maturity until about 25 years of age. For example, approximately 50 percent of 17-19 year-old students:

- Quote inappropriately from textbook
- Provide illogical arguments
- Appear unable to read carefully
- Look for the only answer
- Equate personal opinion with evidence
- Are unaware of underlying assumptions
- Do not adequately defend a solution (Adapted from WolcottLynch.com 2003)

Older students are much more likely to display to opposite of these characteristics. My experience this past year drove home these findings. I taught the same course in the day and evening. The day class was made up of 100 percent full-time students who were mostly 19-20 years old. The evening class was a mixture of about two-thirds part-time and one-third full-time students. Even though I was teaching from the same syllabus, each class required a very different in class protocol. In the day class I had to be more specific in assignments, more hand holding, and more lecture time. The evening class was more of a challenge because of the mixture of younger and older students. Some students wanted the hands-on direction I gave the day students and some students wanted to spend more time on discussion of cases and real world examples. In essence, I was teaching two different courses with the same syllabus and the same courses objectives. To be successful I could not simply follow the same in class procedure for both classes, but I had to adopt a different strategy for each.

Although the in-class strategies differ, I found that I could use an approach that I employ in all my classes. This is a focus of Total Quality Management or TQM, which I have described in a previous Trends Column (Winter 2007). Without going into all the detail the basic idea is that we all—students and teacher—have to take responsibility for the quality of the class. One aspect of quality is preparation. I prepare for the class. I expect to students to prepare as well. I shown them the research from *Issues in Accounting Education* (8/05) that shows “...behavioral intentions rated at time one were still significant predictors of achievement behavior rated four months later ...”

These findings support the notion that behavioral intentions to engage in a range of positive behaviors led to actual behaviors and hence to higher achievement as indicated by students' actual course performance. In students intend to do well you are more likely to succeed. The same research showed that

- Students who read chapters in advance and prepare assignments are 80 percent more likely to make an A or B.
- Students who do not read chapters in advance and prepare assignments are 60 percent more likely to make a C or worse.

I ask that students assess themselves in an objective manner and that, in fairness, I, as instructor, should be assessed as well. In the spirit of the TQM process, a Fast Feedback Form (See Figure 3) is collected at the end of class approximately once per week to provide

- Self-assessment of students' preparation with a goal of complete preparation
- Assessment of the class and instructor's conduct of the class
- Constructive comments for improvements in the class, including topics that the students' found to be unclear.

Taking only two minutes or less of class time, this process produces striking results. Since the forms are completely anonymous, it is possible to get a gauge the student's perception of their own work and whether you are getting your message across. In this way it is possible to adjust from week to week in the course. Due to the different cognitive diversity of the classes, I found myself adjusting in different ways during the term. I tabulate and graph the results after each class and report them the next time I see the students. I can show trends during the term, usually going up. When they go down we can address the reasons. In addition, I briefly review topics that students found difficult and mention all suggestions, including those that I cannot implement and those that are not complimentary. This procedure has the side benefit of a showing the students that I am very interested in the success of the class that I take their comment seriously.

In summary, the nature of a particular class depends strongly on the mix of the ages of students in the classes because age is associated with the average cognitive maturity of students. This characteristic exists in both four-year and two-year schools. As a result, the professor must adapt to each class. Two classes may be approached differently even though using the same syllabus.

Figure 1

Undergraduate Students Age (rounded)-Full Time

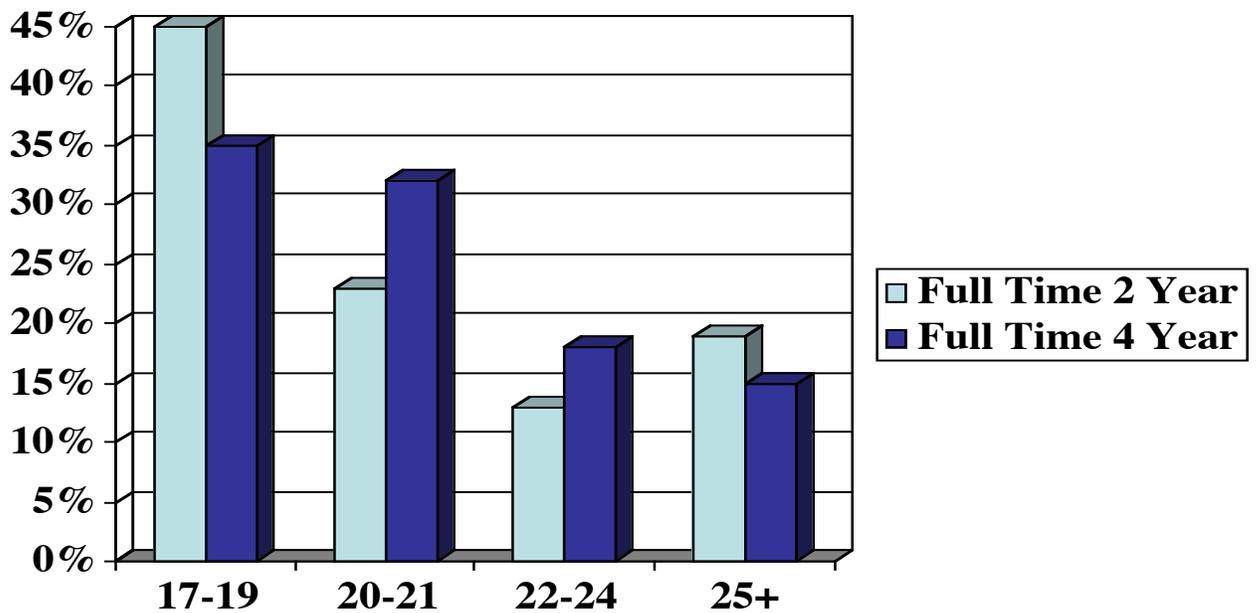


Figure 2

Undergraduate Students Age (rounded)-Part-Time

