The Deterrents To CPE Effectiveness In The Accounting Profession: A Factor Analytic Study

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ABSTRACT

This paper examines the effectiveness of CPE programs for accountants and whether there are deterrents that prevent some CPAs from getting the most out of their CPE hours. Previous studies (Cross, 1981; Dao, 1975; Darkenwald & Merriam 1982; Darkenwald & Valentine, 1985, Chanidinia & Griffith, 1975; Johnstone & Rivera, 1965; Scanlan & Darkenwald, 1984) identified several deterrents or barriers which inhibit voluntary participation in continuing professional education. However, little research has been conducted exploring the relative importance of deterrents to participation in settings in which participation is mandatory. A survey of 1,957 North Carolina CPAs showed that deterrents identified in earlier participation studies are negatively and significantly related to the effectiveness of mandatory continuing professional education for the accounting profession.

INTRODUCTION

All states require that Certified Public Accountants (CPAs) regularly engage in continuing professional education (CPE) as a condition for license renewal. As a result of these regulations, accounting professionals spend considerable time and resources in the pursuit of continuing professional education. Given this high level of investment, the issue of whether continuing professional education expenditures are effective is an important one. An effective CPE program should help accountants maintain competency, update their knowledge, improve professional practice, and provide professional growth.

There is some reason to believe that the CPE program may not be as effective as it could be. For example, current mandatory continuing professional education laws require CPAs to participate in CPE courses, but the regulations refer mainly to attendance. Evidence that CPE courses are not always effective is captured by comments made by many CPAs who view CPE as "hours I get to keep my license." Clyde (1998, p. 77) states that CPAs are often "confronted with the necessity to meet regulatory measurement (how many hours?), classification (was it technical or non-technical?), and appropriateness (what counts?)." The result may be that those taking CPE courses end up focusing on compliance rather than on real competency.

If the hours and resources devoted to mandatory CPE courses are not being well utilized to enhance competency, then a key issue is why not? The problem that the present study seeks to address is whether there are certain factors that limit the effectiveness of the CPE program for accountants. For example, CPAs might not be taking courses they consider most suited to their needs. It is possible that there are significant deterrents keeping CPAs from taking the courses they feel would most enhance their competencies.

LITERATURE REVIEW

The goal of the current study is to identify deterrents to participation in CPE programs and their relationship to perceptions of the effectiveness of the overall program. In this context, the whole program needs to be analyzed, not individual courses. Kirkpatrick (1998) described four levels of evaluation that could be used in judging the effectiveness of training and development programs. Level 1 gathers reactions of the program participants about the

topic, speaker, schedule, and facilities and is similar to customer satisfaction surveys. Level 2 measures the degree to which participants change attitudes, improve knowledge or increase skill as a result of the program. Level 3 evaluates the extent to which a change in behavior occurred because the participant attended the program. Level 4 measures the final organizational results that occurred because the participant attended the program. A study by Bassi, Benson and Cheney (1997) reported that 94 percent of courses were evaluated at Level 1. Only 34 percent were evaluated at Level 2, 13 percent at Level 3, and 3 percent at Level 4. It is challenging at Levels 2, 3, and 4 to isolate the effect of a course on learning, behavior, or organizational results because of intervening variables. For example, training my be effective but the conditions on the job, such as an unsupportive boss, may prevent the participants from applying the newly learned skills. Effectiveness in the present study was measured by gathering Level 1 (reaction) evaluations. It included both affective reactions (relating to enjoyment or liking the programs) and utility reactions (relating to perceptions of utility or usefulness of the programs on the job) in assessing program effectiveness (Alliger, Tannenbaum, Bennett, Traver, and Shortland (1997).

There is relatively little research on the effectiveness of continuing professional education in the field of accounting. Previous studies of CPAs (Flesher & French, 1987; White & Buchanan, 1978) have measured effectiveness through the use of questions about increased professional competency and individual marketability. CPE effectiveness in some studies (Flesher & French, 1987; Young, 1998) also included questions about the opportunity for professional interaction and networking with peers. Phillips (1983) reported that participants in CPE programs believed that the benefits from the social interactions and informal conversations taking place at CPE courses were at least as valuable as the formal courses. Another study of CPAs (Coffee & Beegle, 1994) measured the effectiveness of CPE in improving the image of the profession and protecting the public from incompetent accountants. Herbold and Lange (1989) assessed the effectiveness of the CPE program for accountants by asking about its impact on practice.

The phenomenon of participation in adult education has been defined as the "involvement in events, activities, or programs whose primary purpose is educational in nature" (Douglah, 1970, p. 901). The underlying assumption of most research on participation theory as it relates to adult education in general, and CPE programs specifically, is that providers of professional education can more effectively foster participation if they better understand what motivates professionals to engage in educational activities (Cervero, 1988). It is also important to understand the reasons professionals do not participate in learning activities. The causes of non-participation are called deterrents to participation and are a key element of most theoretical models of participation (Cross, 1981; Darkenwald & Merriam, 1982).

A deterrent is a reason or related group of reasons contributing to an individual's decision not to engage in organized learning activities. Prior research on deterrents to participation in various types of adult education identified several categories of deterrents that were thought to be relevant for the present study:

- Situational deterrents are constraints which inhibit participation and are external to the individual's control (Johnstone & Rivera, 1965). The types of items which could be included as situational deterrents are certainly open to different categorizations. Scanlan and Darkenwald (1984) identified three distinct variables relating to situational deterrents: cost, work constraints, and family constraints. Work constraints, as identified by several researchers (Dao, 1975; Johnstone & Rivera, 1965; and Scanlan & Darkenwald, 1984), include conflicts between course offerings and work responsibilities and the difficulty of taking time off from work in order to participate. Family constraints involve the problems caused by child care issues and other family commitments and have been identified in several research studies (Cross, 1981; Darkenwald & Valentine 1985; and Scanlan & Darkenwald, 1984).

- Dispositional deterrents are factors that hinder participation and represent internal barriers based on personal attitudes toward continuing professional education (Johnstone & Rivera, 1965). One type of dispositional deterrent is the individual's perception about the lack of benefit from engaging in further learning activities (Darkenwald & Valentine, 1985; Scanlan & Darkenwald, 1984). Another type of dispositional deterrent is the individual's disengagement or apathy toward further education (Darkenwald & Valentine, 1985; Scanlan & Darkenwald, 1984).

- Institutional deterrents are practices and procedures of the CPE provider that inhibit participation in continuing education (Cross, 1981). Some of the institutional deterrents identified in the literature include the quality of course offerings, location, scheduling, relevance, and ease of registration (Cross, 1981; Darkenwald & Merriam, 1982; Scanlan & Darkenwald, 1984).

- Informational deterrents are barriers to participation (Darkenwald and Merriam, 1982) relating to a lack of information about the available courses or a lack of information from which to judge the appropriateness of a CPE course.

There are many research studies which have examined the willingness to take or not take ("to participate in") a program (Catlin, 1982; Cervero, 1981; Grotelueschen, 1985;). These studies involved professions in which participation in continuing education was voluntary. Existing research has shown that the decision to participate in continuing education is related, in part, to certain deterrents experienced by the target group. These prior studies (Darkenwald & Valentine, 1985; Davis, 1988; Scanlan & Darkenwald, 1984; Weischadle, 1988) found that those individuals who experienced a high degree of one or more of the deterrents were less likely to participate in voluntary continuing education.

There is, however, little research in circumstances where participation is required by law. When participation in continuing education is required, it was theorized by the researcher that those deterrents identified in earlier studies would continue to exist and be associated with decreased effectiveness of mandatory CPE programs. It may be that accountants who experience was has been traditionally called deterrents to participation may reduce their participation in mandatory CPE in an unusual way. Those accountants who experience various deterrents may respond to these pressures exerted by the deterrents by signing up for only the easy courses, choosing inappropriate courses, selecting inexpensive courses in convenient locations, and so on. Further, it is theorized that as a consequence of their reduced "participation," those accountants are less likely to perceive that the CPE program overall is effective. The central research questions of the present study, therefore, were: (1) how do the deterrents identified in earlier participation studies relate to CPE effectiveness? and (2) which type of deterrent is most predictive of CPE effectiveness?

METHODOLOGY

An e-mail invitation with a link to a web-based survey was sent to 10,187 North Carolina Certified Public Accountants who are members of the North Carolina Association of Certified Public Accountants (NCACPA). There were 1,957 respondents resulting in a response rate of 19.2 percent. The respondents included 970 males (49.6 percent), 975 females (49.8 percent), and 12 respondents not choosing a gender classification.

The instrument used was an author-constructed, self-completion survey designed to gather data on deterrents to participation in continuing professional education faced by North Carolina CPAs. Information about the participants and their perceptions of the effectiveness of the continuing professional education was also collected. The CPE Survey is presented in Appendix A.

The CPE Survey contained 17 items thought to be relevant for the present study drawn from earlier studies on deterrents to participation: situational, dispositional, institutional, and informational deterrents (Cross, 1981; Dao, 1975; Darkenwald & Merriam 1982; Darkenwald & Valentine, 1985, Chanidinia & Griffith, 1975; Johnstone & Rivera, 1965; Scanlan & Darkenwald, 1984). There were also 8 items based on earlier studies that measured CPE effectiveness for accountants (Coffee & Beegle, 1994; Flesher & French, 1987; Herbold & Lange, 1989; Phillips, 1983; White & Buchanan, 1978; Young, 1998). These 8 items collected respondents' perceptions of the usefulness and value of CPE programs on aspects such as maintaining competency, updating knowledge, improving professional practice, providing professional growth, and enhancing professional interactions.

Because of the large number of responses, a Deterrent Score for each of the four categories of deterrents to participation (situational, dispositional or psychosocial, institutional, and informational) was constructed by

conducting a principal components analysis of the 17 deterrent items using SPSS 11.0. Using a Varimax rotation procedure, a factor solution representing four components was computed to aid in the interpretation of the data. Absolute values less than .50 were suppressed. The four-factor rotated solution resulted in three components showing a number of strong loadings greater than .50. All variables except item 12 ("CPE registration hurdles") loaded on only one component. The four factor Varimax solution explained a total of 52.3 percent of the variance, with Component 1 (Items 1a, 1b, 1c, 1d, 1e, 1f, and 1g) contributing 21.3 percent, Component 2 (Items 7, 9, 10, 11) contributing 11.9 percent, Component 3 (Items 5, 6, and 8) contributing 11.3 percent, and Component 4 (Items 13 and 14) contributing 7.8 percent. Because item 12 ("registration hurdles) did not load on any of the factors, it was dropped from the deterrent scores. The factor loadings for each component are also reported in Tables 2 to 5. The four components were then named as described below.

The interpretation of the four components seems consistent with earlier research. Component 1 (concerns about practices or procedures of the CPE provider) grouped all items thought to be related to institutional deterrents (Items 1c, 1d, 1e, 1f) except for Item 12 (registration hurdles) which loaded on none of the components and was dropped. This component also included three additional variables. Two of these variables were originally thought by the researcher to be related to situational deterrents (Item 1a on "cost/value" and Item 1b "time of year). The other variable, Item 1g was thought to be related to an informational deterrent because it asked whether CPE courses were well publicized. The data analysis suggests that those three items, perceptions about cost/value, time of year in which a course is offered, and publicity, are more closely aligned with institutional deterrents because of the factor associations. Component 1, then, includes those practices and procedures of the CPE provider which inhibit participation in continuing education and consists of 7 items (1a, 1b, 1c, 1d, 1e, 1f, and 1g). Component 1 was named the institutional deterrents score with an overall mean of 2.15 and a standard deviation of .526. Component 2 (attitudes toward continuing professional education) grouped all items thought to be related to dispositional deterrents (Items 7, 9, 10, and 11) and was named the dispositional deterrents score with a total mean of 2.68 and a standard deviation of .665. Component 3 (concerns about constraints of work, family, and indirect costs*)* grouped all remaining items thought to be related to situational deterrents (Items 5, 6, and 8) and was named the situational deterrents score with an overall mean of 3.09 and a standard deviation of .717. Component 4 (concerns about lack of information about appropriateness of courses) grouped all remaining items thought to be related to informational deterrents (Items 13 and 14) and was named the informational deterrents score with a total mean of 3.46 and a standard deviation of .693. Scale reliabilities (Chronbach's alpha coefficient) for the four newly created deterrent factors were .83 (Institutional), .63 (Dispositional), .54 (Situational), and .44 (Informational). These figures show adequate reliabilities.

The CPE Effectiveness Score consisted of the mean response on Items 2a, 2b, 2c, 3a, 3b, 4a, 4b, and 4c. In these cases a mean score close to "5" (strongly agree) would indicate that the respondent perceived the CPE program to be highly effective and a score close to "1" (strongly disagree) would indicate that the respondent perceived the CPE program to be highly ineffective. The top ranked effectiveness item was item 4a (CPE courses improve the image of the profession) with a mean value of 4.09. Over 85 percent agreed or strongly agreed with this item and only 3.5 percent disagreed or strongly disagreed. The bottom ranked effectiveness item was item 2c (CPE courses generally enhance or increase my income/earnings) with a mean value of 2.72. Almost 16 percent agreed or strongly agreed with this item and 38 percent disagreed or strongly disagreed. The CPE effectiveness score is the mean of the responses for everyone over items 2a, 2b, 2c, 3a, 3b, 4a, 4b, and 4c [enhances knowledge, employability, income; provides networking opportunities and contacts; improves image, protects public, and makes CPAs more competent]. The CPE effectiveness scores ranged from 1.00 to 5.00 with a mean of 3.45 and a standard deviation of .569. Based on the mean results, the respondents rated the CPE program between 3 (meaning "neutral") but below 4 (meaning "agree") regarding the effectiveness of CPE courses in general. The CPE effectiveness score showed very acceptable internal consistency, with a Cronbach alpha coefficient of .8104.

RESULTS

The primary focus of the present study was, again, to determine the relationship between each of the four categories of deterrents and perceived CPE effectiveness. Using a one-tailed Pearson product-moment correlation, it was found that all four deterrent scores were significantly and negatively correlated with the CPE effectiveness score (shown in Table 1). For the respondents to the CPE Survey, those who have a high deterrent score in each category

are more likely to have a lower CPE effectiveness score. The strength of the relationships, however, was different among the deterrent types. Cohen (1988) suggests the following guidelines in evaluating the strength of correlations: r = +/- .10 to +/- .29 is classified as small; r = +/- .30 to +/- .49 is classified as medium; and r = +/- .50 to +/- 1.00 is classified as large. Using this classification, the institutional deterrent score correlation would be classified as a large correlation, the dispositional deterrent score correlation as a medium correlation, the situational deterrent score as a small correlation, and the informational deterrent score as a less than small correlation.

Table 1 - Correlation Between Deterrent Scores and CPE Effectiveness (N = 1850)

Scores		CPE Effectiveness Score
Institutional Deterrent Score	Pearson correlation Sig. (2 tailed)	-.509** <.0005
Dispositional Deterrent Score	Pearson correlation Sig. (2 tailed)	-.347** <.0005
Situational Deterrent Score	Pearson correlation Sig. (2 tailed)	-.114** <.0005
Informational Deterrent Score	Pearson correlation Sig. (2 tailed)	-.054* .020

** Correlation is significant at the .01 level (2-tailed)
* Correlation is significant at the .05 level (2-tailed)

A multiple regression analysis was subsequently performed using the four deterrent scores as the independent variables and the CPE effectiveness score as the dependent variable. A significant model emerged [F (4, 1845) = 298.975, $p < .0005$]. The regression showed that the four deterrent scores explained 39 percent of the variance in the CPE effectiveness score ($R^2 = .393$, $R^2_{adj} = .392$). All four deterrent scores made a significant negative contribution to the regression equation. An inspection of the Beta weights suggested that the institutional deterrents score [high quality, relevant, right length, good value, etc.] which had the largest Beta coefficient at -.506, was the most predictive of perceived CPE effectiveness ($p < .0005$). The Beta value for the dispositional deterrents score, -.343 [less useful with experience, dislike formal schooling, can learn on the job], was the second most predictive of CPE effectiveness ($p < .0005$). The contributions of the situational deterrents score [indirect costs of food and travel, job demands, distance] and the informational deterrents score [need satisfaction ratings, hard to know if course is right for me] in explaining the variance in the CPE effectiveness score were small as shown by their Beta coefficients of -.118 ($p < .0005$) and -.054 ($p = .003$) respectively. Table 2 reports the results of the regression analysis and shows that the four combined deterrent scores significantly and negatively contribute to perceived CPE effectiveness.

Table 2 - Multiple Regression Analysis of Deterrents on CPE Effectiveness

Deterrent	B	Beta	t	p
Institutional	-.288	-.506	-27.928	<.0005
Dispositional	-.195	-.343	-18.892	<.0005
Situational	-.06737	-.118	-6.508	<.0005
Informational	-.03038	-.054	-2.972	.003

Note: $R^2 = .393$, F (4, 1845) = 298.975, $p < .0005$

DISCUSSION OF RESULTS

There was a significantly negative relationship in the present study between each deterrent score and CPE effectiveness. This indicates that the deterrents that were identified in settings of voluntary participation in continuing education still exist in settings in which participation is required. It also shows that deterrents are associated with reduced effectiveness in settings which require participation in continuing education. This study lends support to the conceptualization of deterrents described by Alexandris and Carroll (1997) who described deterrents as barriers that

do not completely preclude participation, but instead they are inhibiting constraints which restrain the ability to participate to a certain extent. The deterrents are no longer directly related to participation since all CPAs are required to participate in CPE. Rather, participation may be "reduced" by enrolling in inappropriate courses in convenient locations rather than selecting courses that actually enhance their professional competencies. As a result of these actions, the CPE program is perceived to be less effective.

All four deterrent factors emerged as statistically significant predictors of effectiveness, explaining a combined 39 percent of the variance in the CPE effectiveness score. Many of the deterrent items had low scores (less than 3 on a scale in which 5 is a high deterrent). Low item means were also found in previous research on deterrents (Darkenwald & Valentine, 1985; Langsner, 1994; Scanlan & Darkenwald, 1984). This may indicate that an individual's participation decision--and perception of effectiveness-- is the result of a combined or synergistic effect of several deterrents instead of just one or two in isolation. An alternative explanation is that there are other more important deterrents that will be uncovered in future studies.

The institutional deterrents score was the most predictive of effectiveness. It is notable that the individual means of the items comprising the institutional deterrent score were ranked in the bottom third meaning that the respondents as a group did not view these deterrents as important as some other deterrents. However, for those who did report a high institutional deterrent, it was much more likely to be negatively related to effectiveness. This finding is important for CPE providers because the items that form the institutional deterrent score reflect perceptions relating to course quality, relevance, scheduling, publicity, and value in relation to cost, all of which can be affected by the CPE provider.

The second most predictive deterrent for effectiveness was the dispositional deterrent score. These items represent attitudes that the respondents have toward continuing professional education including perceptions relating to a lack of benefit ("one can learn on-the-job or through in-house training") and attitudes of disengagement ("dislike formal schooling and lectures"). CPE providers may be able to address these attitudes by offering unique programs that are unlikely to be offered at the work site. For example, CPE providers may want to consider offering CPE courses that lead to a specific credential such as Certified Financial Planner. It is notable that the third most important deterrent in the present study was Item 9 ("If CPE was not required, I would take fewer courses") with a mean of 3.38. Nearly 58 percent agreed or strongly agreed with this item. While the survey showed a high degree (76 percent agreement) of overall satisfaction with CPE (Item15 "Overall I am very satisfied with my CPE experience."), it is troubling that 58 percent would take fewer courses if not required. This suggests that while most courses are useful, the marginal ones are not. The timing, level, and variety of courses may need to be examined so that all of the required credit hours are well spent.

The situational deterrent score was the third most predictive of effectiveness. Previous studies (Scanlan and Darkenwald, 1984) had identified three distinct types of situational factors; i.e., cost, family constraints, and work constraints. In the present study, when the means for these items were ranked, all were ranked in the top 35^{th} percentile. This indicates that the respondents as a whole view the indirect costs, job demands, and travel burdens as important. However, these deterrents were less likely to be negatively related to perceptions of effectiveness compared with the institutional or dispositional deterrents.

The informational deterrent score was the least predictive of effectiveness. One of the survey items that comprised this score had the highest mean ("Before selecting a CPE course, it would be useful to know the course satisfaction ratings given by previous participants") with nearly 75 percent of respondents agreeing or strongly agreeing with the statement. The high mean indicates that most respondents view the lack of this kind of information to be a deterrent. CPE providers might want to consider whether this information might be made available in brochures and materials about CPE courses. However, even though there was a statistically significant relationship between the information deterrents score and the CPE effectiveness score, the size was small.

LIMITATIONS

A limitation of the present study was that it used a new survey constructed specifically for this research project. It had not been previously tested for reliability or validity. Internal consistency reliability was measured here by using Cronbach's coefficient alpha. The alpha coefficients range in value from 0 to 1. The higher the score, the more reliable the generated scale is. Nunnaly (1978) has indicated that a score of 0.7 is an acceptable reliability coefficient but lower thresholds are sometimes used in the literature. In the present study, the CPE effectiveness score (which consisted of eight items) had acceptable internal consistency. The Cronbach alpha coefficient for the CPE effectiveness score was .81. The Cronbach alpha coefficient for the deterrent scores were .83 (institutional), .63 (dispositional), .54 (situational), and .44 (informational).

Content validity was established by involving an expert panel of five North Carolina CPAs representing different areas of accounting practice. These experts reviewed the survey items for completeness, accuracy, conciseness, clarity, and item redundancy. The professional education staff of the NCACPA also reviewed the survey. Litwin (2003) notes that "content validity is not quantified with statistics. Rather it is presented as an overall opinion of a group of trained judges" (p. 33). This approach was taken here. After these reviews, a small pilot test was conducted to determine if the wording of any questions was unclear, to examine any unexpected responses, and to measure the length of time it took to complete the CPE survey.

Another limitation was that the survey was sent only to the 10,187 members of the NCACPA who have e-mail addresses (out of a total membership roster of 11,082). Because the sample was not randomly chosen, the results cannot be generalized to the entire membership of the NCACPA or to all accountants. E-mail and web-based surveys are also relatively recent research tools. The response rate from electronic surveys may not be as robust as from a mail or telephone survey.

A further limitation was that a self-administered questionnaire was used to collect the responses here. Any questions that were unclear or ambiguous may have resulted in unusable or incorrect information. The respondents were being asked to recall their CPE experiences over the past year (2003). Consequently, the individuals' perceptions of CPE effectiveness or deterrents may be limited by faulty memory.

IMPLICATIONS

There is a compelling public interest for states to require that CPAs maintain and improve their competency through continuing professional education. To ensure the best outcome, regulators and CPE providers need to address those factors that might be reducing the effectiveness of mandatory CPE. As mentioned earlier, the findings show that 75 percent of CPAs would find it useful to know the course satisfaction rating given by previous participants. Comments at the end of the survey reinforce the point that there is a large amount of uncertainty about the appropriateness of particular courses. A self-employed CPA in taxation said, "It would be extremely useful to know prior to signing up for a course how the course has been rated by peers." To the extent that CPAs select the "wrong" course because of a lack of information, CPE effectiveness will be impaired. All CPE courses currently conduct a brief course evaluation by the participants. The state regulators and CPE providers should examine the feasibility of publicizing these course evaluations.

CPE program providers need to better understand the needs of the learners and the things that limit the effectiveness of those programs. The present study presented evidence that institutional deterrents are the most important predictor of perceived CPE effectiveness. These practices include such important factors as the length and level of courses as well as quality and relevance. Three other deterrents, dispositional, situational, and informational, were also found to be significantly related to perceived CPE effectiveness.

Specific strategies can be devised to help the various types of CPAs identified in this study to overcome the deterrents they experience. To address barriers represented by institutional deterrents, CPE providers should offer more advanced courses, more courses year-round instead of at year-end, and a greater variety of courses to meet the needs of practitioners in different types of primary service. Dispositional deterrents reflect internal barriers based on

personal attitudes toward continuing professional education. CPE providers may be able to allay concerns that job demands leave little time for CPE by offering on-site courses at firms that employ large numbers of accountants. Many respondents indicated that they would take fewer CPE courses if it were not required and yet 76 percent are satisfied overall with their CPE experience. To assure that all 40 credit hours are well-utilized, CPE providers should review whether the timing, level, and variety of course offerings are relevant to all types of accountants including those in industry. Barriers relating to situational deterrents such as long travel distances could be alleviated if CPE providers would offer more Internet or self-study options to ease travel burdens. Courses offered at resort locations would permit CPAs to combine additional education with a family vacation thereby easing the difficulty of being away from the family while completing CPE. The informational deterrents reported by some respondents may be remedied if CPE providers would investigate ways for CPAs to find out course satisfaction ratings given by previous participants. Perhaps these ratings could be posted on the website of the CPE provider. In addition, CPE providers need to clearly describe the subject matter and level of course in informational literature to help practitioners more accurately determine if a course is right for them.

Little research has been conducted examining the relative importance of deterrents to participation in settings in which participation is mandatory. The present study showed that the deterrents identified in earlier participation studies are negatively related to perceived effectiveness of mandatory continuing education programs. While the survey showed that continuing professional education is effective for many practitioners, the accounting profession must work to minimize those deterrents which prevent some of its members from getting the most out of their CPE program. By reducing these barriers, the individual accountant, the profession, and society will all reap the benefits of more effective continuing professional education.

REFERENCES

1. Alexandris, K. and Carroll, B. (1997 January-March). "An analysis of leisure constraints based on different recreational sport participation level: Results from a study in Greece". *Leisure Sciences 19* (1), 1-15.
2. Alliger, G. M., Tannenbaum, S., Bennett, W., Traver, H., and Shotland, A. (1997). "A meta-analysis of the relations among training criteria". *Personnel Psychology 50* (2), 341-359.
3. Bassi, L. J., Benson, G. and Cheney, S. (1996 November). "The top ten trends". *Training and Development 50* (11), 27-42.
4. Cervero, R. M. (1988). *Effective continuing education for professionals*. San Francisco: Jossey-Bass.
5. Coffee, D. and Beegle, J. (1994 March). "Mandatory continuing professional education for CPAs: Is it working?" *Journal of Education for Business 69* (4), 222-225.
6. Cohen, J. W. (1988). *Statistical power analysis for the behavior sciences* (2nd edition). Hillsdale, NJ Lawrence Erlbaum Associates.
7. Cross, K. P. (1981). *Adults as learners*. San Francisco, CA: Jossey-Bass.
8. Clyde, N. J. (1998, December). "CPE is broke; let's fix it". *Journal of Accountancy 186 (6*), 77-83.
9. Dao, M. N. S. (1975). "The orientations toward nonparticipation in adult education". (Doctoral dissertation, University of Chicago, 1975).
10. Dhanidina, L., and Griffith, W. S. (1975). "Costs and benefits of delayed high school completion". *Adult Education 25* (4), 217-230.
11. Darkenwald, G. G. and Merriam, S. B. (1982). *Adult education: foundations of practice*. New York: Harper & Row.
12. Darkenwald, G. G. and Valentine, T. (1985). "Factor structure of deterrents to public participation in adult education". *Adult Education Quarterly, 35* (4), 177-193.
13. Davis, L. J. (1988). "Deterrents to bank managers' participation in continuing education". *Dissertation Abstracts International*, 50 (3A), 597. (UMI No. AAI8911231).
14. Douglah, M. (1970). "Some perspectives on the phenomena of participation". *Adult Education Journal 20*, 88-98.
15. Flesher, D. L, and French, R. G. (1987, July). "The CPA and mandatory CPE". *The Woman CPA* 49 (3), 30.
16. Herbold, M. I. and Lange, G. A. (1989 Spring). "New York licensed practitioners' views on the state's mandatory continuing professional education requirement". *Georgia Journal of Accounting* 10, 75-84.
17. Johnstone, J. W. C. and Rivera, R. J. (1965). *Volunteers for learning*. Chicago: Aldine.

18. Kirkpatrick, D. (1998). *Evaluating training programs: The four levels.* San Francisco: Berrett-Koehler Publishers.
19. Langsner, S. J. (1994, April). "Deterrents to participation in continuing professional education and implications for future educational program planning". Paper presented at the annual meeting of the American Alliance of Health, Physical Education, Recreation and Dance, Denver, CO.
20. Litwin, M. S. (2003) *How to assess and interpret survey psychometrics* (second edition). Newbury Park, CA: Sage Publications.
21. Nunnaly, J. (1978). *Psychometric theory*. New York: McGraw-Hill.
22. Phillips. L. E. (1987). Is mandatory continuing education working? *Mobius 7* (1), 57-64.
23. Rubenson, K. (1977). "Participation in recurrent education". Paris: Center for Educational Research and Innovations, Organization for Economic Cooperation and Development.
24. Scanlan, C. L. (1986). "Deterrents to participation: An adult education dilemma". Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education, The Ohio State University.
25. Scanlan, C. L., and Darkenwald, G. G. (1984, Spring). "Identifying deterrents to participation in continuing education". *Adult Education Quarterly 34* (3), 155-166.
26. Weischadle, M. A. (1988). "Effects of attitudes and deterrents on participation in continuing education by real estate professionals". *Dissertation Abstracts International*, 49 (10A), 131. (UMI No. AAI8827370)
27. Young, W. H. (1998). "Systematic efforts in continuing professional education focusing on mandatory continuing professional education". In W. H. Young (Ed.), *Continuing Professional Education in Transition* (p. 129-140). Malabar, FL: Krieger Publishing Company.

APPENDIX A
CONTINUING PROFESSIONAL EDUCATION SURVEY

Part I

The statements below describe opinions and views expressed by some CPAs about CPE courses. Thinking about all of the CPE courses that you took **in the past reporting year (January, 2003 to December, 2003)**, please indicate the extent to which you agree or disagree with each statement using a scale ranging from 1 (strongly disagree) to 5 (strongly agree).

		Strongly Disagree				**Strongly Agree**
1.	In general, the CPE courses that I took in 2003 were:					
	a. a good value in relation to their cost.	**1**	**2**	**3**	**4**	**5**
	b. offered at times of the year that fit my schedule.	**1**	**2**	**3**	**4**	**5**
	c. high quality.	**1**	**2**	**3**	**4**	**5**
	d. geared to the right level for me.	**1**	**2**	**3**	**4**	**5**
	e. relevant to my practice needs.	**1**	**2**	**3**	**4**	**5**
	f. the right length of time for my needs.	**1**	**2**	**3**	**4**	**5**
	g. well publicized.	**1**	**2**	**3**	**4**	**5**
2.	CPE courses generally enhance or increase					
	a. my current knowledge base.	**1**	**2**	**3**	**4**	**5**
	b. my employability.	**1**	**2**	**3**	**4**	**5**
	c. my income/earnings.	**1**	**2**	**3**	**4**	**5**
3.	CPE courses generally provide					
	a. useful networking opportunities with peers.	**1**	**2**	**3**	**4**	**5**
	b. valuable contact with experts in the field.	**1**	**2**	**3**	**4**	**5**
4.	When CPAs are required to take CPE courses it					
	a. helps improve the image of the profession.	**1**	**2**	**3**	**4**	**5**
	b. helps protect the public from incompetent professionals.	**1**	**2**	**3**	**4**	**5**
	c. makes it more likely that CPAs are competent.	**1**	**2**	**3**	**4**	**5**

5.	The indirect costs (travel, food, etc.) of participating in CPE courses tends to be excessive.	**1**	**2**	**3**	**4**	**5**
6.	The demands of my job leave little time for CPE courses.	**1**	**2**	**3**	**4**	**5**
7.	I find that CPE course are less useful to me as I gain experience.	**1**	**2**	**3**	**4**	**5**
8.	Taking CPE courses that involve long-distance travel is a significant burden to me and/or my family.	**1**	**2**	**3**	**4**	**5**
9.	If CPE was not required, I would take fewer CPE courses.	**1**	**2**	**3**	**4**	**5**
10.	I can learn what I need through on-the job or in-house instruction.	**1**	**2**	**3**	**4**	**5**
11.	I do not like lectures and formal schooling.	**1**	**2**	**3**	**4**	**5**
12.	CPE course registration typically involves too many hurdles.	**1**	**2**	**3**	**4**	**5**
13.	Before selecting a CPE course, it would be useful to know the course satisfaction ratings given by previous participants.	**1**	**2**	**3**	**4**	**5**
14.	It is often difficult to determine in advance if a course is right for me or would benefit me professionally.	**1**	**2**	**3**	**4**	**5**
15.	Overall, I am very satisfied with my CPE experience.	**1**	**2**	**3**	**4**	**5**

Part II

In this last section please answer some questions about yourself and your work. How many years of experience in the accounting profession do you have?

_____ years of experience

Which category best describes your current position?

a. Self-employed.
b. Employee
c. Manager
d. Partner
e. Educator
f. Other (please specify) _____

What is the *primary type* of accounting service that you provide in your current position?

a. Audit
b. Banking and Finance
c. Computer and Information Services
d. Consulting
e. Education
f. Government
g. Industry
h. Non-profits/Associations
i. Small Business
j. Taxation
k. Other (please specify)

What is the size of the organization in which you are employed?

a. less than 5 employees
b. 6 - 25 employees
c. 26 -50 employees
d. 51 - 100 employees
e. 101 - 500 employees
f. over 500 employees

What is your gender?

a. male
b. female