Instructional Design and Delivery for Strategic Cost Management to Learners with Diverse Intelligence



Dr. C. Samuel Joseph MBA, FCMA, Ph.D. Associate Professor Karunya School of Management Karunya University, Coimbatore

Introduction

ost Accounting has been tied, in the past to the concepts of score keeping, attention directing, and problem solving, but the expectation from the Cost & Management Accountants in today's world have changed dramatically, extending well beyond these concepts. The Management Accountant is no longer viewed as a technical and procedural expert only, but as a business advisor, one who helps the organization to develop and implement its strategy. Accounting is often characterized as subjects stuffed with structured definitions of technical vocabularies and complexities, uninteresting number crunching and the concepts and techniques (Springer and Borthick 2004) and Strategic Cost Management is no exception to it. Accounting students are widely criticized for their inflexibility in problem-solving (Deleo and Letourneau 1994) and insufficient communication skills (Andrews & Sigband 1984). Accounting Education Change Commission (AECC, 1990) has called for educational reform in the accounting courses curriculum, balancing the conventional content teaching with skills teaching, constructivism learning and importantly preparing the students and capabilities need to be acquired by them for the ever changing work environment (Francis et al. 1995) and to give the students the needed confidence in taking up corporate responsibilities.

Review of Literature

Edward J.Blocher (2009) in his study "Teaching Strategic Cost Management: A strategic emphasis" has taken the strategic approach and shown why and how it can be applied to teaching cost management. The "Why strategy? Question is answered by reference to a set of survey findings, a discussion of the potential errors in non strategic decision making, and changes at the Institute of Management Accountants and within the CMA exam that reflect a greater emphasis on strategy. He concludes that strategic approach of teaching cost management changes the attitude of

students as they see that how this course helps organization become more competitive and successful.

Chang Chee Fei (2008) in his study "Teaching Accounting to learners with Diverse Intelligence" discusses the practicality of alternative pedagogies in the teaching of accounting courses, following the eight distinct intelligences described in the Multiple Intelligence (MI) theory. The author concludes that 'number smart' students are more receptive to accounting knowledge as compared to students with other intelligences.

Melissa Walters and Teresa M.Pergola (2009) in their study "An Instructional Case: Cost Concepts and Managerial Analysis" stress that case method of teaching helps working understanding of fundamental cost concepts and the proper use of cost data for managerial analysis purposes. The author concludes that the set of questions designed at the end of the case stimulate critical thinking and interactive class discussions.

LeeAnn Griggs, Sally Barney et.al. (2009) in their article "Varying Pedagogy to Address Student Multiple Intelligences" inquired to determine if the teaching methodologies most often used by the participant instructors were aligned with the intelligence strength from which their students worked. They conclude that students in each class exhibit certain strengths that do not align predominantly with lecture and notes method of instruction.

Larry N.Bitner (1991) in his study "A Framework for Teaching Management Accounting" provides a schematic framework that integrates all of the traditional management accounting topics into a single information network and concludes that the model assists in helping students bridge the gap between the traditional course coverage and the evolving changes likely to be in place through their careers.

Need for the study

The modern business environment characterized by globalization is forcing many firms to question the effectiveness of many traditional business practices. In the light of the changes taking place, Universities are under constant pressure to meet employer's needs. Regulatory and accrediting bodies call for reforms in curriculum, balancing the conventional content teaching with skills teaching, constructivism learning, turning passive learning environment into a interesting and inspiring one and preparing the students to take on corporate responsibilities. In such a situation it becomes inevitable to know the demography of the entire classroom of students who possess diverse intelligence which would enable the educators to understand the strength of their students whom they can better prepare and groom by such pedagogies that correlate those strengths. Hence this study assumes importance.

Multiple Intelligence Theory

Dr. Howard Gardner, a psychologist and professor of neuroscience from Harvard University, developed the theory of Multiple Intelligences (MI) in 1983. The theory challenged traditional beliefs in the fields of education and cognitive science. Unlike the established understanding of intelligence — people are born with a uniform cognitive capacity that can be easily measured by short-answer tests — MI reconsiders our educational practice of the last century and provides an alternative.

According to Howard Gardner, human beings have nine different kinds of intelligence that reflect different ways of interacting with the world. Each person has a unique combination, or profile. Although we each have all nine intelligences, no two individuals have them in the same exact configuration — similar to our fingerprints.

Howard Gardner's Nine Multiple Intelligences

- 1. Linguistic Intelligence: the capacity to use language to express what's on in one's mind and to understand other people. Any kind of writer, orator, speaker, lawyer, or other person for whom language is an important stock in trade has great linguistic intelligence.
- 2. Logical/Mathematical Intelligence: the capacity to understand the underlying principles of some kind of causal system, the way a scientist or a logician does; or to manipulate numbers, quantities, and operations, the way an accountant or a mathematician does.
- 3. Musical Rhythmic Intelligence: the capacity to think in music; to be able to hear patterns, recognizes them, and perhaps manipulates them. People who have strong musical intelligence don't just remember

music easily, they can't get it out of their minds, and it's so omnipresent.

- 4. Bodily/Kinesthetic Intelligence: the capacity to use your whole body or parts of your body (your hands, your fingers, your arms) to solve a problem, make something, or put on some kind of production. The most evident examples are people in athletics or the performing arts, particularly dancing or acting.
- 5. Spatial Intelligence: the ability to represent the spatial world internally in your mind the way a sailor or airplane pilot navigates the large spatial world, or the way a chess player or sculptor represents a more circumscribed spatial world. Spatial intelligence can be used in the arts or in the sciences.
- 6. Naturalist Intelligence: the ability to discriminate among living things (plants, animals) and sensitivity to other features of the natural world (clouds, rock configurations). This ability was clearly of value in our evolutionary past as hunters, gatherers, and farmers; it continues to be central in such roles as botanist or chef.
- 7. Intrapersonal Intelligence: having an understanding of yourself; knowing who you are, what you can do, what you want to do, how you react to things, which things to avoid, and which things to gravitate toward. We are drawn to people who have a good understanding of themselves. They tend to know what they can and can't do, and to know where to go if they need help.
- 8. Interpersonal Intelligence: the ability to understand other people. It's an ability we all need, but is especially important for teachers, clinicians, salespersons, or politicians anybody who deals with other people.
- 9. Existential Intelligence: the ability and proclivity to pose (and ponder) questions about life, death, and ultimate realities.

Objectives of the study

The purpose of the paper is to provide directions to Cost Management educators for the development of curriculum and appropriate teaching pedagogies which emphasize the importance of having students understand the competitive environment in which organizations function and for them to learn the strategic tools the organizations use to pursue in their competitive environment, following the nine distinct intelligences described in the Multiple Intelligence (MI) theory. Thus the study has the following objectives:

1. To ascertain the relationship between Multiple Intelligence profile test score and their continuous assessment test score.

- 2. To test the relationship between students' Multiple Intelligence profile test scores with continuous assessment test score achieved by them in theoretical and numerical questions in the test question paper.
- 3. To test the hypothesis that the number smart students will tend to perform better in Strategic Cost Management course due to their inborn capability in working with numbers, and reasoning.

Methodology and Data Collection

To support the above objectives, a survey has been conducted to quantify the MI Profiling test among the final year students at the Master's level of the Business Administration numbering 105 who have registered for the course Strategic Cost Management as part of their Finance specialization.

These students were asked to complete a survey form (McKenzie, 1999) consisting nine sections in order to identify their MI profile. The MI test scores of each section collected from individual students were then totaled and regression tests were conducted, using the test scores of each type of intelligence as independent variables and students continuous assessment test scores as dependent variable.

Results and Discussions

A total of 94 out of 105 (89.5%) usable responses were received from the students and the same has been processed for analysis. Table 1 shows the mean scores of the student's nine intelligences. The scores revealed that the students considered all the intelligences are important. However, they have considered Intra personal Intelligence, Visual Intelligence and Kinesthetic Intelligence and Existential Intelligence are most important.

Table No. 1

Mean Scores of the Nine Intelligences

Intelligences	Mean	Standard Deviation
Naturalist	65.43	16.95
Musical	66.28	17.90
Logical	67.13	15.63
Existential	73.51	15.36
Interpersonal	64.47	18.64
Kinesthetic	73.83	17.66
Verbal	62.45	20.30
Intrapersonal	75.96	16.81
Visual	75.85	17.19

Source: Computed

Multiple Intelligence Profile Scores and Continuous Assessment Test Score

To ascertain the relationship between MI profile

test scores and continuous assessment test scores, Pearson correlation and multiple regression analysis has been used. Continuous Assessment test (otherwise Internal Test) is conducted to all students once in a month by the course teachers. It has three subdivision—viz, Part A which tests the concepts, Part B which tests the knowledge and understanding and Part C has numerical problems. Table 2 below reflects the results of the analysis.

Table No. 2

Relationship Between MI Profile Test Scores and
Continous Assessment Test Scores

Intelligence	Correlation (r)	Coefficient of Determination (r²)	Significance
Naturalist	0.159	0.025	Not Significant
Musical	0.217	0.047	*Significant
Logical	0.236	0.056	*Significant
Existential	0.269	0.072	**Significant
Interpersonal	0.250	0.063	*Significant
Kinesthetic	0.106	0.011	
Verbal	0.183	0.033	Not Significant
Intrapersonal	0.278	0.077	**Significant
Visual	0.162	0.026	Not Significant

Source: Computed **Correlation is Significant at the 0.01 level

*Correlation is Significant at the 0.05 level

From the above table 2 it is inferred that Intrapersonal Intelligence has showed a highest correlation with the continuous assessment scores, with r² value of 0.077. The Existential Intelligence shows the second highest correlation with the continuous assessment test scores, with r² value of 0.072.

The Interpersonal Intelligence has also recorded a relatively high r² value as compared to the other remaining intelligences. Although the Logical Intelligence has not demonstrated strong correlation with the continuous assessment test scores, it has recorded an r² value of 0.056 and is significant at 5 per cent level. Thus the result from this investigation has proved that number smart students will tend to perform better in Strategic Cost Management course due to their inborn capability in working with numbers, abstract patterns, relationships and reasoning. Thus it is inferred that students with higher scores in the MI profile test will probably score high in the continuous assessment tests.

Structural Bias in the Question Paper

The author has made an attempt to study the pattern of question paper designed for the continuous

assessment test to study the relationship between the students' MI profile test scores with the continuous assessment test score obtained by them in Theoretical and Numerical sections of the question paper.

Two Regression analyses were conducted to assess the scores obtained by the students in their MI profile test and the scores obtained in theoretical questions of continuous assessment test (Group I) and Numerical questions (Group II). This has been done to know whether there is any correlation in their Verbal and Logical Intelligence as reflected by r. Further, the Institute of Certified Management Accountants (ICMA) continuously reviews the content of the Certified Management Accountant (CMA) and Certified Financial Manager (CFM) programs, and recently revised the content of the CMA exam. These changes in the exam reflect an increased emphasis on "Strategic and critical thinking skills, able to link data, knowledge, and insight to provide quality advice for strategic decision making."

Relationship between MI profile test scores and Continuous Assessment test scores of Theoretical Questions

Theoretical questions normally form part of any standard question paper either it is a University examination or a Professional examination. Under the theoretical sections, questions were designed to test the ability of the student in terms of their writing skills, understanding skills and knowledge skills and mostly includes fundamental and conceptual. The results of the analysis are shown in Table 3:

Table 3
Relationship Between MI Profile Test Scores and Continuous Assessment Test Sroces of Theoretical Questions

Intelligence	Correlation (r)	Coefficient of Determination (r²)	Significance
Naturalist	0.201	0.040	*Significant
Musical	0.247	0.061	*Significant
Logical	0.250	0.063	*Significant
Existential	0.286	0.082	**Significant
Interpersonal	0.279	0.078	**Significant
Kinesthetic	0.118	0.014	
Verbal	0.173	0.013	Not Significant
Intrapersonal	0.285	0.081	**Significant
Visual	0.202	0.041	*Significant

Source: Computed **Correlation is Significant at the 0.01 level

*Correlation is Significant at the 0.05 level

From the table 3 it is inferred that students with the Existential Intelligence have registered the highest Coefficient of determination—that is r² value of (0.082)—followed by Intrapersonal Intelligence, and Interpersonal Intelligence. Verbal intelligence only comes in the eighth place. The continuous assessment questions which are aimed to assess the student's ability on the conceptual side (theoretical) have thus failed to gain any significant advantage. Therefore, it is inferred that "word smart" students have not done anything significantly compared to their classmates with other intelligences.

Relationship between MI profile test scores and Continuous Assessment test scores of Numerical Questions

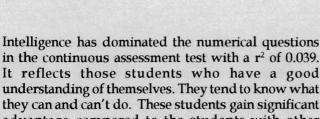
Strategic Cost Management as a course demands the computation skills from the students. They need to work out numerically and arrive at a decision based on the numbers. Numerical skills reflect the logical reasoning and competence with abstract patterns and relationships and problem solving (Gardner, 1983) students possessing these characteristics will be in an advantageous position to attempt and solve the numerical questions asked in the question paper. As these questions were specifically designed to test the student's ability to compute, classify and categorization. Thus in an effort to study the relationship between the MI profile test scores and the Continuous assessment test scores obtained by the students who have attempted the numerical section a regression test has been used. The results are furnished in Table 4 ·

Table 4
Relationship Between MI Profile Test Scores and Continuous Assessment Test Sroces of Numerical Ouestions

Intelligence	Correlation (r)	Coefficient of Determination (r²)	Significance
Naturalist	0.013	0.000	
Musical	0.072	0.005	
Logical	0.119	0.014	Not Significant
Existential	0.128	0.016	Not Significant
Interpersonal	0.082	0.007	Lab -
Kinesthetic	0.023	0.001	
Verbal	0.134	0.018	Not Significant
Intrapersonal	0.197	0.039	* Significant
Visual	0.004	0.000	_

Source: Computed **Correlation is Significant at the 0.05 level

It is inferred from Table 4 that Intrapersonal



advantage compared to the students with other Intelligences. Although Logical Intelligence has demonstrated relatively a strong correlation with the test scores in computation section, it is still not statistically significant.

Outcomes from these regression tests has thus proved that students with Intrapersonal Intelligence are naturally more effective in learning strategic cost management, since they are those students who know what they can do and what they can't do.

Dominant Intelligence

Dominant Intelligence denotes intelligence with the highest score recorded by individual student in the MI profile test. Only 10 students out of 94 students who took part in this study are logical intelligence dominant which means such students have in born competence with abstract patterns, identifying and establishing relationships and have more interest in problem solving. Similarly, 32 students out of 94 are verbal intelligence dominant. Therefore, the results show that there are only 10.6 percentage of number smart students and 34 percentage of word smart students. Thus it is suggested that, cost management educators to identify the students who have disadvantages in learning strategic cost management, and to develop and deliver an alternative teaching techniques that suits to the audience type to disseminate the costing knowledge to students with diverse intelligences.

Implication for Teaching Strategic Cost Management

Teaching and learning cost management courses will be more effective only when the teacher learns to identify the learner deficiency and their diversity in terms of their intelligence. It is observed that learning by students is genetically linked to the way quantitative courses were being taught. Traditional higher educational institutions tend to focus essentially on content pedagogy assessing, and rewarding the number smart and word smart intelligences (Barrington, 2004). The conventional chalk-and-talk method of teaching is certainly insufficient, particularly when the course demands higher ability and complicated concepts (Becker & Watts 2001). Students can process information more effectively when the relevant material is presented in a format that matches their learning preference (Denig 2004). Undermining students self esteem arising from failure to deliver academic achievements will

eventually conceal their true potentials (Campbell et.all 1996).

Teachers in higher classes in Master's or Professional courses mostly follow the lecture method with the convenience it offers. In the first place, a large number of students can be handled simultaneously. The teacher is in full control of the lessons. It is a good method for introducing a new topic and ideal for a pep talk. But it cannot be as the effective method of teaching. The students have little involvement, they are often mere passive listeners. Those with poor listening skills do not benefit much, if they do not take notes they will forget most of what they have heard. If the entire class happens to be like that, then teaching will be a disaster.

As a solution to some of the problems indicated above, the educator of Strategic Cost Management should ensure that strategic approach is critical to accounting and business education, begin a lecture on how companies use strategy to identify and obtain a competitive advantage. The Michael Porter framework of cost leadership and differentiation is a useful guide, it is simple and intuitive and will work well in the class room, besides, Porter framework has stood the test of time, as a defining point of reference in many discussions of strategy (Kaplan and Norton). The teacher can spend 20-30 minutes of class time in giving illustrations from prominent companies like Dell, TISCO, Maruti, etc., that use different type of strategy. Then go from simple to complex and from concrete to abstract. Often, use a natural conversational style that would prove to be more effective than styles of spellbinding oratory.

The next best thing the teacher can do is to draw out from the students what they know, rather than telling everything in the lesson or topic. The case approach is the most recommended teaching pedagogy for costing subjects. Case approach demands from the students to apply deep intellectual thinking on the subject matter. Students are driven to carry out a tremendous amount of research and forced to integrate knowledge across multiple areas. Cases may be distributed to the students well ahead of the class — normally at least 24 hours prior to its discussions — students may be asked to come prepared for the classes for discussion.

Designing Suitable Pedagogy for Meeting the Learners' Diverse Intelligence Needs

Selecting and using the following approaches will add variety to classroom teaching and, more importantly, will assist the teacher concerned to handle diverse spectrum of learners:

- 1. Relate SCM concepts and techniques to corporate situations and enable the students to visualize it.
- 2. Try to bring out the students' strengths and integrate it with the topic being discussed.
- 3. Ask short questions to create enthusiasm among students—this will help the learning spirit going through out the sessions.
- 4. Distribute additional reading materials to the students and ask them to come read for the next sessions, this will give the student a clue about what will be dealt in the class by you next time.
- 5. Adopt Group learning approach for students with high interpersonal intelligence—Gardner (1983). This is one of the common pedagogy the author administers to the students, allow the students to work in groups and ask them to make presentations with inferences.
- 6. Davies (2000), in his research says persons with Intra personal intelligence should be given computer based assignments using MS-Excel or any accounting software as they are self smart students who prefer to work alone. The author in his teachings always insist the students to submit the assignments only in computer printout forms, and expose the students to various analyzing tools through MS-Excel which they do it interestingly.
- 7. The Visual-Spatial intelligence or otherwise 'Picture Smart' students prefer to learn through images and pictorial diagrams (Barrington, 2004). For such students the teacher should adapt to the process of externalizing, through drawings and diagrams and draw the mental connections and association of patterns that students make based on the topic learned (Angelo & Cross, 1993). Outcome from the research by Maas & Leauby (2005) proves that the usage of concept mapping in classroom has been positive and fruitful as measured by improved examination scores. The author supplements his teachings on the topic Balance Score Card through animated Power Point Presentations as a visual treat and it has impacted well among the students.
- 8. The Importance of Social cost analysis, Costbenefit ratio, any strategic cost issues connected with Corporate Social Responsibility will interest the students of 'nature smart' students hence, the educators should plan and design curriculum to include such topics to instill interest among such students.
- 9. Student with Bodily-Kinesthetic intelligence show more interest in role-play, quizzes, games and business simulation (Cage 1997, Craig & Amernic 1994). Assigning special characters role plays gives

them an opportunity to express their talents in public presentations and also it exposes them behavioral issues of accounting profession (Chang Chee Fee, 2008). The author had conducted a mock business meetings on Pricing Strategies which not only helped the student to internalize the Cost Management concepts but also accelerated the learning velocity of the students.

- 10. Students with Verbal-Linguistic, by themselves are very sensitive to the order and meaning of words, articulation and naturally show keen interest in discussing, debating and writing. Thus, Case based learning serves as an effective tool in reinforcing and connecting the theories into various aspects of business and hence enables student's critical thinking process and eventually encourages life long learning (Knechel 1992, Evans & Nunnally 2002, Deleo & Letourneau 1994, Hansen 2006). The author has experienced this by administering the Classic Pen Company: Developing an ABC Model a case developed by Professor Robert S. Kaplan and it has worked well in the SCM class.
- 11. For the Musical-rhythmic intelligence students the author suggests to play soothing melodies at the beginning of each class and enable them to integrate the thinking process effectively to listen to the topics with more rapturous attention.
- 12. The Existential Intelligence student exhibit the ability and proclivity to pose (and ponder) questions about life, death, and ultimate realities-this was the ninth intelligence added to the mainstream MI theory by Gardner (1999). This type of students will be more interested in knowing the connectivity of the topics to the ultimate end, topics like Life Cycle costing will be of more interesting to them as it discuss about the entire life of the product and the stages it passes through and ultimately its end.

Conclusion

It is concluded from the study that students of Strategic Cost Management exhibit certain strengths that do not align with lecture method of instruction. Certainly, times have changed and teachers of costing should consciously attempt to engage students in a variety of manners. In a situation where new advancements in Costing Curriculum is planned and executed by professional bodies like CIMA, (UK) ICAI (Kolkatta) progressively, the costing educators should understand and appreciate the need for a new active learning environment, they have to take the frontline to identify the fundamental abilities of each student before embarking on a particular form of pedagogy. In such a situation cost management education will become easy and simple.

References

- Edward. J. Blocher (Feb,2009). Teaching Cost Management: A strategic emphasis, Issues in Accounting Education, Vol.24, No. 1 pp.1-12.
- Chang Chee Fei, (2008), Teaching Accounting to Learners with Diverse Intelligence Retrieved in July 2010, from:http://ssrn.com/abstract: 1327578.
- Accounting Education Change Commission (AECC) (1990). Objectives of Education for Accountants. Position Statement No. One. Sept 1990, Torrance, CA: AECC.
- Andrews, J. D. and Sigband, N. B. (1984). How effectively does the "new" accountant communicate? Perceptions by practitioners and academics. The Journal of Business Communication (Spring): 15-24.
- Angelo, T. A., and Cross, K. P. (1993). Classroom Assessment Techniques: A Handbook for College Teachers (2nd ed.). San Francisco, CA.: Jossey-Bass.
- Barrington, E. (2004). Teaching to Students Diversity in Higher Education: How Multiple Intelligence Theory Can Help, Teaching in Higher Education, Vol. 9, No. 4, October 2004.
- Becker, William E. and Watts, M. (2001). Teaching Economics at the Start of the 21st Century: Still Chalkand-Talk, American Economic Review, 2001, vol. 91, is. 2, pp. 446-451.
- Cage, M. C. (1997). Role-Playing Replaces Spreadsheets in College Accounting Courses, The Chronicle of Higher Education, January 31, 1997. Retrieved from http:// www.business.uiuc.edu/accountancy/projdisc/ articles/chronicle.html
- Campbell, L., Campbell, B. and Dickinson, D. (1996). Teaching and Learning through Multiple Intelligences (Boston, MA, Allyn & Bacon)
- Craig, R. and Amernic, J. (1994). Roleplaying in a conflict resolution setting: Description and some implications for accounting, Issues in Accounting Education. Sarasota: Spring 1994. vol. 9, Issue. 1; pg 28
- Deleo, W. I. and Letourneau, C. A. (1994). Use of a problem-solving model in teaching specific accounting concept, Journal of Education for Business May/Jun 94, 69; 5 p 263.
- Denig, S. (2004). Multiple intelligences and learning styles: Two complementary dimensions. Teachers College Record, 106(1), pp 96-111
- Evans, M. D. and Nunnally, B.H. Jr. (1994). An

- Interdisciplinary Case Study For Financial Management, October 6-7, 1994.
- Evans, M. D. and Nunnally, B. H. Jr. (2001). Finance Case Teaching and The Business Core Courses (March 2001). Retrieved on May 29, 2006, from http://ssrn.com/abstract=303199
- Gardner, H. (1983). Frames of Mind: The Theory of Multiple Intelligences, 1st edn, New York: Basic Books
- Gardner, H. (1999). Intelligence Reframed. Multiple intelligences for the 21st century, New York: Basic Books.
- Hanson, E. and Phillips, F. (2006). Teaching financial accounting with analogies: improving initial comprehension and enhancing subsequent learning, Issues in Accounting Education, American Accounting Association Feb 2006, vol. 21 issue 1, p1(14)
- Knechel, W. R. (1992). Using the Case Method in Accounting Instruction, Issues to Accounting Education, vol. 7, no. 2; Fall 1992
- Maas, J. D. and Leauby, B. A. (2005). Concept Mapping - Exploring Its Value as a Meaningful Learning Tool In Accounting Education, Global Perspectives on Accounting Education, Vol. 2, 2005, 75-98
- McKenzie, W. (1999). Multiple Intelligences Inventory, Copyright @ 1999 Walter McKenzie, The One and Only Surfaquarium. Retrieved on August 25, 2010 from http: //surfaquarium.com/MI/inventory.htm
- Springer, C. W. and Borthick, A. F. (2004). Business Simulation to Stage Critical Thinking in Introductory Accounting: Rationale, Design, and Implementation, Issues in Accounting Education Aug 2004, vol. 19, Issue 3, pg 277
- Larry N.Bitner (1991) A Framework for Teaching Management Accounting, Issues in Accounting Education Vol. 6, No. 1 Spring, pp 112-119.
- Melissa Walters and Teresa M. Pergola (2009) An Instructional Case: Cost Concepts and Managerial Analysis, Issues in Accounting Education, Vol. 24, No. 4, November, pp 531-538.
- Ron Dughman, Special Populations, Bev Newton, Business Education, Bonnie Sibert, Business Education, (1997), Teaching Strategies for Enhancing Curriculum Nebraska K-12 Business Education Framework, June 1997, pp 5-8.
- Warrier B.S (2010) , Different Styles of Classroom Teaching, Education Plus, "The Hindu" Monday, September 20, 2010. pp 6.