

## **The Effects of the Integrated Instructional Model on Students' Achievement in Advanced Financial Accounting in Nigerian Universities**

B.E. Okoli and B.O. Nwosu  
Department of Business Education, Ebonyi State University,  
Abakaliki, Ebonyi State - Nigeria

**Abstract:** The study investigated the effects of Integrated Instructional Model on Students achievement in Advanced Financial Accounting in Nigerian Universities. Poor performance of students in advanced financial accounting informed the study. The study employed a non-equivalent control group quasi-experimental design. The sample for the study comprised of five hundred and thirty seven (537) final year students drawn from four universities in the South-East Geopolitical Zone of Nigeria. Three research questions and three null hypotheses tested at 0.05 level of significance guided the study. Data on students' achievement in advanced financial accounting were collected using accounting achievement test. Data were analysed using mean, standard deviation and analysis of co-variance (ANCOVA). Result revealed that the Integrated Instructional Model (IIM) is superior to the conventional teaching method in enhancing achievement in advanced financial accounting. It also revealed that IIM has no significant differential effect on the mean achievement scores of males and females in advanced financial accounting. The test of interaction revealed that gender had no significant interaction with teaching methods on achievement in advanced financial accounting. Based on the findings, it was recommended that the IIM should be incorporated in financial accounting curriculum in order to enhance students' achievement.

**Key words:** Achievement, accounting, integrated, instruction, Nigeria and Universities

### **INTRODUCTION**

Accounting according to Osisioma (1990) is the language of business which is employed to communicate financial information. It has the responsibility of keeping track of the essential information affecting the financial activities of the organisation, of interpreting the information in terms of related success or failure and helping to plan the course of future action.

One of the objectives of higher education according to the National Policy on Education (Federal Republic of Nigeria, 2004) is for the students to acquire both physical and intellectual skills which will enable individuals to develop into useful members of the community. In business education, accounting constitutes the most fundamental and indispensable intellectual skill.

Unfortunately, a close look at the students' performance in accounting in some Nigerian Universities show that they generally perform poorly. Nwakoha (2000) noted that accounting students have a number of problems associated with both cognitive and motor skills and poor adherence of the students to sensitive accounting rules.

Integrated Instructional model is a combination of teaching methods like demonstration, simulation, discussion, question and answer etc to enhance performance in accounting. Integrated instructional model can be used by teachers to create learning environment

and to specify the nature of activity by which the teacher and the learner will be involved during the lesson. It is believed that students learn more when lecturers use different techniques ranging from telling a story about a topic, to more involved activities like small students work groups doing collaborative learning projects.

The concern has been on how to enhance students' performance in advanced financial accounting and accounting in general. This is important because Agbobu (1992) noted that the contribution of accounts to the training of students for the world of work depends on how it is taught. Furthermore, Ezema (2001) noted that some traditional instructional approaches are gender based, and, this may explain why male students do better in some aspects of accounting than the females. The speculation is that careful integration of instructional techniques may have fascinating implications in accounting instruction.

The prescription is for an integration of instructional approaches in accounting lectures. It is widely believed that students' performance in any course is a function of instruction. Approaches to instruction, therefore, are considered a serious factor in accounting education especially with the current emphasis on competency based and sustainable economic system in Nigeria.

**Statement of the problem:** In Nigerian Universities, the trends in students' achievement in accounting have been

quite discouraging. This situation coupled with the poor accounting skills usually exhibited by students on industrial training point unmistakably to the approaches employed in teaching accounting in our various institutions, (Nwakoha, 2000). The current lecture approach to teaching accounting in higher institutions have been criticised and seen as incapable of inculcating the relevant accounting skills in learners. Although, efforts at improving teaching and learning in the field of accounting and allied courses have been made through the introduction of new teaching approaches, the status of accounting instruction in higher institutions according to Ajewole (2001) continues to dwindle.

With the increasing development in the world of industry and trade, the Nigerian Universities are further challenged with the task of producing competent manpower in the field of accounting. This poses a great demand on accounting lecturers to devise appropriate instructional strategies that could produce the right manpower to face the emerging challenges.

While it could not be said that the current poor performance in accounting is as a result of the current traditional model of instruction, convincing argument in favour of the integrated instructional model cannot be successfully presented without subjecting the approach to a thorough empirical screening.

**Purpose of the study:** The study aimed to determine the effects of integrated instructional methods on students' achievement in advanced financial accounting. Specifically the study sought to:

- Ascertain the effects of an integrated instructional method on students' achievement in financial accounting.
- Ascertain the effects of an integrated instructional method on the mean achievement of male and female students in advanced financial accounting.
- Determine the interaction effect of instructional approach and gender on students mean achievement in advanced financial accounting.

**Research questions:**

- What is the effect of integrated instructional model on students' mean achievement in advanced financial accounting?
- What is the effect of integrated instructional model on the mean achievement of male and female students in advanced financial accounting?
- What is the interaction effect of Integrated Instructional Approach and gender on students' mean achievement in advanced financial accounting?

**Hypotheses:**

Ho<sub>1</sub>: There is no significant difference in the mean achievement scores of students taught advanced financial accounting using the integrated instructional approach and those taught using the conventional methods.

Ho<sub>2</sub>: There is no significant difference in the mean achievement scores of male and female students taught advanced financial accounting using the integrated approach.

Ho<sub>3</sub>: The interaction effect of gender and instructional approach on students mean achievement in advanced financial accounting will not be significant.

**METHODOLOGY**

The study adopted a quasi-experimental procedure. Hence, there was no random assignment of subjects. Intact classes were used. The study was conducted within the south-east geopolitical zone of Nigeria. The population comprised all the final year accounting students in all the twelve universities in the South-East geopolitical zone of Nigeria.

Four universities were selected from all the universities in the South-East geopolitical zone of Nigeria through a simple random sampling technique. Out of the four universities sampled, two were assigned to the treatment and control groups respectively. The assignment of schools to treatment and control groups was also done through a simple random sampling technique. The control group was made up of 241 students in the intact classes while the experimental group was made up of 296 students in two intact classes. The instrument used for the study was the Accounting Achieving Test (AAT).

**RESULTS**

**Data analysis:**

**Research question 1:** What is the effect of Integrated Instructional Model on students' mean achievement in advanced financial accounting?

In Table 1, the Integrated Instructional Model yielded a mean achievement score of 50.38 with a standard deviation of 16.20 while the conventional method yielded a mean score of 22.89 with a standard deviation of 6.87. It showed that the Integrated Instructional Method is better than the Conventional Method in enhancing students' achievement in advanced financial accounting.

**Research question 2:** What is the effect of Integrated Instructional Model on the mean achievement of male and female students in advanced financial accounting?

In Table 2, the males students had a mean of 50.27 and a standard deviation of 10.32 while the female students had a mean of 50.45 and a standard deviation of 9.64. The results showed that the Integrated Instructional model seems not to have much differential effect on male and female students.

**Research question 3:** What is the interaction effect on Instructional Approach and gender on students' mean achievement in advanced financial accounting?

Table 1: Effect of Integrated Instructional Model on Students' Mean achievement in advanced financial accounting

Group	Adjusted Mean	SD	N
Integrated method	50.38	16.20	296
Conventional method	22.89	6.87	241

Table 2: Mean scores of males and females taught advanced financial accounting using the integrated instructional model

Group	Adjusted mean	SD	N
Males	50.27	10.32	122
Females	50.45	9.64	174

Table 3: The interaction effect of instructional approach and gender on students' mean achievement in advanced financial accounting

Group	Male	Female
Integrated method	50.27	50.45
Conventional method	23.68	22.20

In Table 3, the males and females taught using integrated method had adjusted means of 50.27 and 50.45 while the males and females taught using conventional method had adjusted means of 23.68 and 22.20, respectively. It showed that the integrated teaching method is superior to the conventional method for the two groups of gender (male and female), hence, there was no interaction.

**Hypotheses:**

- Ho<sub>1</sub>: There is no significant difference in the mean achievement scores of students taught advanced financial accounting using the integrated approach and those taught using the conventional method.
- Ho<sub>2</sub>: The interaction effect of gender and instructional approach on students' mean achievement in advanced financial accounting will not be significant.

For hypothesis 1, the ANCOVA Table 4 revealed that the F calculated is 2233.580, which is greater than the critical value 3.86 at an alpha level of 0.05, hence, the null

hypothesis was rejected and it was concluded that there is significant difference in the mean achievement scores of students taught advanced financial accounting using the integrated approach and those taught using the conventional approach.

On test of interaction, the F calculated value (1.481) is less than the F-critical (3.86). The researcher upheld the null hypothesis.

Ho<sub>2</sub>: There is no significant difference in the mean achievement scores of male and females taught advanced financial accounting using the integrated approach.

As shown in Table 5, the f cal value (0.601) is less than the f. critical (3.86), hence the researcher upheld the null hypothesis.

**DISCUSSION**

Results in Table 1 revealed that the Integrated Instructional method is better than the conventional method in enhancing students' achievement in advanced financial accounting. On the test of significance of difference in the mean achievement of students taught advanced financial accounting using the integrated instructional method, there is a significant difference in the mean achievement scores of students' taught advanced financial accounting using the integrated approach and those taught using the conventional approach. These findings agreed with the views of Nwako (2000) and Ekwue (1993) who noted that the current lecture method of teaching accounting in higher institutions has been found to be incapable of inculcating the relevant accounting skills in learners. Moreover, they noted that the most alleged difficulties of teaching and learning of basic accounting concepts are mostly not due to inherent difficulty in the course but on the over concentration on

Table 4: Analysis of Co-variance (ANCOVA) for students' overall achievement scores by instructional approach and interaction

SV	SS	df	MS	F. cal.	FCV
Covariates	49382.341	1	49382.341	150.794	
Main effect	73721.641	2	36860.821	1120.995	
Methods	73445.087	1	73445.087	2233.580	3.86
Gender	724	1	724	0.022	
2 way interaction (method x gender)	48.684	1	48.684	1.481	3.86
Explained	123152.667	4	30788.167	936.16	
Residual	17493.348	532	32.882		
Total	140646.015	536	262.399		

SV = Source of Variation, SS = Sum of Squares, MS = Mean Square

Table 5: Analysis of Co-variance (ANCOVA) for students' achievement scores by gender

SV	SS	df	MS	F. cal.	FCV
Covariates	19528.424	1	19528.424	607.678	
Main effect	19.311	1	19.311	0.601	
Gender	19.311	1	19.311	0.601	3.86
Explained	19547.735	2	9773.867	304.139	
Residual	9415.887	293	32.136		
Total	28963.622	295	98.182		

SV = Source of Variation, SS = Sum of Squares, MS = Mean Square

abstraction typified by conventional instrumental approach. The findings also agreed with Olawole (2003) who noted that integrated instructional approach would help to achieve more understanding of the concept on the part of the learner, hence, Merickel (1998) and Huffman (1980) agreed that it is more important for the teacher to decide on the method to combine in order to achieve the instructional objectives.

The results of data analysis in Table 2 revealed that the integrated approach seems not to have differential effect on male and female students' achievement in advanced financial accounting. Table 3 shows that there was no interaction. The test of significance of difference in the mean achievement scores of male and female students taught advanced financial accounting using the integrated instructional method showed that there is no significant difference in the mean achievement scores of male and female students taught advanced financial accounting using the integrated approach. The findings go contrary to the view of Ezema (2001) who argued that instructional integration is gender sensitive and could influence differentially the achievement of males and females. He, however, did not specify the course areas where such integration could be gender sensitive.

On tests of significance in Table 4, there was no significant interaction. The findings agreed with Merickel (1998) who noted that males and females do not possess outstanding differential instructional traits that could warrant trait interaction in accounting classes. He noted that Masculinity and Feminity are not pronounced issues in accounting classes.

### CONCLUSION

**Based on the findings, the researcher concluded that:**

- Integrated instructional model is better than the conventional method in teaching advanced financial accounting.
- Integrated instructional model did not seem to have a differential effect on males and females achievement in advanced financial accounting.
- There was no interaction effect between instructional approach and gender on students' mean achievement in advanced financial accounting.

### RECOMMENDATION

**The following recommendations were made:**

- The integrated instructional model should be incorporated in the financial accounting curriculum in order to enhance students' achievement.
- In designing integrated instructional model for teaching advanced financial accounting in universities, similar approach should be adopted in the delivery of the course to both male and female students.
- Since achievement of students in advanced financial accounting was not found to be gender dependent, it is recommended that assessment of both male and female students in advanced financial accounting should not be gender biased.

### REFERENCES

- Agbobu, D.A., 1992. Accounting education and self reliance. *Bus. Edu. J.*, 2(4): 78-83.
- Ajewole, O.T., 2001. Learning and Cognition. Wisdom Press, Ibadan.
- Ekweue, K.C., 1993. Teaching accounting in secondary schools: An appraisal of instructional materials. *Bus. Edu. J.*, 3(1): 26-33.
- Ezema, A.O., 2001. Effects of laboratory instruction on students achievement in chemistry. Unpublished M.Ed. Thesis, University of Nigeria.
- Federal Republic of Nigeria, 2004. National Policy on Education. NERDC Press, Lagos.
- Huffman, H., 1980. Twenty One Suggestions for teaching Recordkeeping: Readings in Teaching Business Subjects. Pitman Publishing, California.
- Merickel, M.C., 1998. Integrated Instructional Design. Oregon State University Press, Corvallis.
- Nwakoha, C.N., 2000. Techniques for Teaching the Gifted. Wisdom Press, Owerri.
- Olawole, T.O., 2003. The Classroom Manager and Basic Instructions. Viniks Press, Lagos.
- Osisoma, B.C., 1990. Studies Text in Accountancy. Newage Publishing Company, Enugu.