



## Video Conferencing Tools and Instructional Delivery of Accounting Courses Among University Business Education Lecturers in Rivers State, Nigeria

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### Abstract

The study examined the application of video conferencing tools for instructional delivery of accounting courses among university business education lecturers in Rivers State. Two research questions and two hypotheses guided the study. The study adopted the descriptive survey research design. The population for the study comprised all 30 business education lecturers teaching accounting courses in Ignatius Ajuru University of Education, Rivers State University and the University of Port Harcourt. The entire population was used for the study. A structured questionnaire titled “Questionnaire on Application of Video Conferencing Tools for Effective Delivery of Accounting Courses” (QAVCTEDAC) was used as the instrument for data collection. Three experts validated the instrument, while the test-retest method was used to obtain a reliability coefficient of 0.85. All 30 copies of the questionnaire administered were retrieved and used for the study. The items were rated on a four (4) point rating scale. The mean was used to answer the research questions, while ANOVA was used to test the hypotheses. The results revealed a low extent of application of Zoom and Google Meet as video conferencing tools for the instructional delivery of accounting courses among university business education lecturers in Rivers State. Based on the findings, the researchers recommended that university administrators and lecturers should ensure the training and retraining of business education lecturers, as well as adequate provision of necessary facilities to encourage the application of video conferencing tools for the instructional delivery of accounting courses.

**Keywords:** Application, Video Conferencing Tools, Instructional Delivery, Accounting Courses, Business Education Lecturers

### Introduction

Video conferencing is an emerging technology that paves the way for easy communication, wherein teachers communicate easily with students online. Video Conferencing is a medium for communication and makes learning live, real, factual, interesting and enjoyable. Learning in this environment is significantly interesting because it provides audio and video simultaneously. Kristóf (2020) asserted that video conferencing is the use of a network to transmit and receive audio and visual information in real time. Thus, the use of a video conferencing tool can facilitate face-to-face teaching and learning between persons in different locations. It is activated by the use of internet service-connected smart mobile phones, laptops, desktops, iPads, iPhones, televisions, and other electronic gadgets (Nwosu et al., 2024). Video conferencing can be used in the teaching and learning environment by teachers for demonstrations, research guidance, examinations, viva-voce, meetings, project presentations, etc.

Video conferencing has provided teachers with new ways of presenting materials, working with students, and, as such, video conferencing tools are stimulating the development of strategies that are consistent with new technology. Kiran et al. (2020) mentioned various video conferencing tools, including Zoom, Google Meet and Microsoft Teams, which are widely used as video conferencing tools in higher education for teaching, learning, education, lectures, chapters,

assignments, examinations, and other activities. Video conferencing tools enable effective and efficient communication between users and can be an effective tool for knowledge sharing and instructional delivery.

Instructional delivery is the process employed in the transfer of knowledge from the instructor to the learner. According to Ogwu and Ogwu (2020), as cited in Odey et al. (2025), instructional delivery is a process of facilitating learning which is expected to bring about change in the behaviour of the learner. It involves decisions about organising people, materials and ideas to provide learning (Nwachukon, 2023, as cited in Odey & Solomon, 2025). Onwuagboke and Singh (2020, as cited in Odey et al., 2025) asserted that instructional delivery involves all human interactive skills employed by the teacher to promote and facilitate learning in the classroom situation. This implies that instructional delivery is achievable with the aid of facilities, and the efficient use of such facilities brings about effective instructional delivery in the education system and specifically in the business education programme.

Business Education is an aspect of Vocational Education involved in business preparation for individuals to acquire appropriate knowledge, skills and attitudes for self-reliance in the world of work and for preparation of individuals as intelligent consumers of goods and services provided by business (Amesi, 2025). Accordingly, Ukata and Agburuga (2024) opined that Business Education is a programme of study that enables the transfer of knowledge and skills from teachers to learners to empower the learners to participate and function effectively in business. It is a component of vocational education, which aims to provide students with the necessary modern technology skills and competencies to enable them to participate in society. To prepare students to become both employers and employees, Business Education places a strong emphasis on developing students' skills in a variety of fields and options, including accounting, office technology and management, management information systems, management, marketing, digital marketing, entrepreneurship, cooperative studies, insurance, and accounting. It also emphasises the use of multimedia technologies (Oyerinde et al., 2020).

Accounting as a major element of the Business Education programme is put together to ensure the development of accounting skills among learners. The instructional delivery of accounting courses such as Financial Accounting for Business Educators 1 (BED 114), Financial Accounting for Business Educators 2 (BED 211), Taxation for Business Educators (BED 426), Cost Accounting for Business Educators (BED 222), Management Accounting for Business Educators (BED 321), Public Sector Accounting for Business Educators (BED 322), Auditing and Investigation for Business Educators (BED 413), Business Finance and Advance Financial Accounting for Business Educators (BED 312) etc, calls for improved strategies involving the use of new technologies such as video conferencing. There is a need for accounting education lecturers to acquire the required digital skills to meet the needs of instructional delivery and assessment in accounting education. Emeka and Amaewhule (2024) opined that this can only be achieved when Accounting Education lecturers move with the current trends in technological advancement, which are reflected in the changing patterns of the Accounting Education curriculum. However, it has been observed that some business educators do not deliver course content effectively, as some still practice the traditional classroom method (Okaka & Abeng, 2025). Thus, the researchers are concerned with the extent of application of video conferencing tools such as Zoom and Google Meet for instructional delivery of accounting courses among university business education lecturers in Rivers State. Zoom and Google Meet happen to be one of the most widely used video conferencing tools across the globe. Basic features of both tools include screen sharing, a waiting room, security features, recording, and consent for video and audio functions, and they are perfect for visual and audio communication.

Despite the growing body of literature on the use of digital technologies in education, most existing studies have focused on general instructional practices rather than the specific application of video conferencing tools in the teaching of accounting courses. Furthermore, limited empirical evidence exists on the extent to which business education lecturers in Rivers State universities utilise tools such as Zoom and Google Meet. This gap necessitated the present study.

Video conferencing tools basically facilitate interactive virtual video conversations and videotaped lectures with audio and visuals. It is a method of communication that encourages information sharing between two or more individuals from different locations where sound, vision and data signals are conveyed electronically to enable simultaneous interactive communication. Video conferencing has proven to be a reliable source for teaching and learning, especially during the COVID-19 pandemic lockdown era, where most lectures and presentations as well as meetings were held

online using video conferencing tools. Accounting courses, like every other course in the university environment, can be delivered using video conferencing, no doubt.

Despite the enormous benefits of the application of video conferencing, there are several indications that video conferencing tools are not fully applied for the purpose of instructional delivery. Video conferencing and multimedia projectors seem not to be fully applied by business educators for improving the teaching of business education in tertiary institutions (Nwosu et al., 2024). Ukata and Agburuga (2024) elucidated that the application of multimedia technologies by Business Education lecturers for teaching accounting courses is at a very low extent. It has also been observed that schools do not adequately embrace the acquisition and utilisation of digital instructional technologies in business education (Ido & Asuquo, 2014; Ojo & Akhademe, 2016 as cited in Timya & Duktur, 2023). Also, Okiridu and Okafor (2022) earlier reported that video conferencing and recorded audio were applied to a low extent in teaching and learning of business education courses. Hence, this study investigated the application of video conferencing tools for instructional delivery of accounting courses among university business education lecturers in Rivers State.

The purpose of this study was to examine the use of video conferencing tools for delivering accounting courses to university business education lecturers in Rivers State. Specifically, the study sought to:

1. Determine the extent of the application of Zoom for the instructional delivery of accounting courses among university business education lecturers in Rivers State.
2. Ascertain the extent of the application of Google Meet for the instructional delivery of accounting courses among university business education lecturers in Rivers State.

The following research questions were answered;

1. What is the extent of the application of Zoom for the instructional delivery of accounting courses among university business education lecturers in Rivers State?
2. What is the extent of the application of Google Meet for the instructional delivery of accounting courses among university business education lecturers in Rivers State?

The following null hypotheses were tested:

1. There is no significant difference in the mean ratings of business education lecturers in IAUE, RSU and UPH on the extent of the application of Zoom for the instructional delivery of accounting courses.
2. There is no significant difference in the mean ratings of business education lecturers in IAUE, RSU and UPH on the extent of the application of Google Meet for the instructional delivery of accounting courses.

## Methodology

The descriptive survey research design was adopted for this study. The population for the study, as indicated in the table below, comprised 30 business education lecturers specialising in accounting: 4 from Ignatius Ajuru University of Education (IAUE), 10 from Rivers State University (RSU), and 16 from the University of Port Harcourt (UPH), all located in Rivers State, Nigeria.

**Table 1: Population Distribution**

| S/N            | Institution                                   | Total No. of Education Lecturers | Business Accounting |
|----------------|-----------------------------------------------|----------------------------------|---------------------|
| 1.             | Ignatius Ajuru University of Education (IAUE) | 4                                |                     |
| 2.             | Rivers State University (RSU)                 | 10                               |                     |
| 3.             | University of Port Harcourt (UPH)             | 16                               |                     |
| <b>G/Total</b> |                                               | <b>30</b>                        |                     |

Source: Institutions Departmental Office, 2026.

The entire population was used for the study, as it was small and manageable. Thus, the census sampling technique was adopted. The instrument used for data collection was a structured questionnaire titled “Questionnaire on Application of Video Conferencing Tools for Effective Delivery of Accounting Courses” (QAVCTEDAC). The instrument was designed to address the two research questions with 12 structured items: Items 1-6 addressed Research Question One, and Items 7-12 addressed Research Question Two, using a 4-point rating scale weighted as “High

Extent” (HE) – 4 points, “Moderate Extent” (ME) – 3 points, “Low Extent” (LE) – 2 points, and “Very Low Extent” (VLE) – 1 point. To establish the validity of the instrument, the questionnaire was subjected to face and content validity by two experts from the Department of Business Education and one expert from Measurement and Evaluation, all in the Faculty of Education at Ignatius Ajuru University of Education. To ensure the consistency of the instrument, the test-retest method of reliability was adopted, and the Pearson Product Moment Correlation Coefficient was used to determine a reliability coefficient of 0.85. All 30 copies of the questionnaire were retrieved and used for the study; this represents 100 per cent of the total number distributed. The data analysis was done using the mean to analyse the research questions, while Analysis of Variance (ANOVA) was used to test the hypotheses at the 0.05 level of significance. The mean was obtained by summing all responses assigned to a rating scale in an item and dividing by the total number of responses:  $4+3+2+1/4 = 2.50$ . The mean score of 2.50 and above was considered high, while those below 2.50 were considered low. The null hypothesis was rejected when the calculated F-value (F-cal) was greater than the critical F-value (F-crit) at the 0.05 level of significance. Otherwise, the null hypothesis was not rejected.

## Results

**Table 2: Mean ratings on the extent of application of Zoom for instructional delivery of accounting courses amongst university Business Education lecturers in Rivers State. N=30**

| S/N               | Statements                                                                                      | IAUE<br>(X1) | RSU<br>(X2) | UPH<br>(X3) | Mean        | Decision  |
|-------------------|-------------------------------------------------------------------------------------------------|--------------|-------------|-------------|-------------|-----------|
| 1.                | Zoom is used for the delivery of the introduction to accounting courses.                        | 2.40         | 2.30        | 2.33        | 2.34        | LE        |
| 2.                | Zoom is used for the delivery of experts' opinions on complex topics in accounting courses.     | 2.10         | 2.44        | 2.30        | 2.28        | LE        |
| 3.                | Zoom is used to share lecture materials for the delivery of accounting courses.                 | 2.13         | 2.45        | 2.49        | 2.36        | LE        |
| 4.                | Zoom is used for instructional recordings of lectures for the delivery of accounting courses.   | 2.20         | 2.22        | 2.31        | 2.24        | LE        |
| 5.                | Zoom is used for presentations of calculations in the delivery of accounting courses.           | 2.14         | 2.42        | 2.42        | 2.33        | LE        |
| 6.                | Zoom is used for real-time question-and-answer sessions for the delivery of accounting courses. | 2.24         | 2.35        | 2.33        | 2.31        | LE        |
| <b>Grand Mean</b> |                                                                                                 |              |             |             | <b>2.31</b> | <b>LE</b> |

Source: Field Report, 2026.

The responses of the respondents in Table 2 indicated that items 1 - 6, with mean scores of 2.34, 2.28, 2.36, 2.34, 2.33 and 2.31, were rated low extent, respectively, implying that, in the responses of the respondents Zoom is not used for introduction, delivery of expert's opinions on complex topics, sharing of lecture materials, instructional recordings of lectures, presentations of calculations and real-time question-and-answer sessions for the delivery of accounting courses. The grand mean of 2.31 indicates a low extent of application of Zoom for instructional delivery of accounting courses amongst university Business Education lecturers in Rivers State.

**Table 3: Mean ratings on the extent of application of Google Meet for instructional delivery of accounting courses amongst university Business Education lecturers in Rivers State. N=30**

| S/N               | Statements                                                                                             | IAUE<br>(X1) | RSU<br>(X2) | UPH<br>(X3) | Mean        | Decision  |
|-------------------|--------------------------------------------------------------------------------------------------------|--------------|-------------|-------------|-------------|-----------|
| 7.                | Google Meet is used for the delivery of the introduction to accounting courses.                        | 2.31         | 2.29        | 2.12        | 2.24        | LE        |
| 8.                | Google Meet is used for the delivery of experts' opinions on complex topics in accounting courses.     | 2.20         | 2.44        | 2.35        | 2.33        | LE        |
| 9.                | Google Meet is used to share lecture materials for the delivery of accounting courses.                 | 2.22         | 2.30        | 2.49        | 2.34        | LE        |
| 10.               | Google Meet is used for instructional recordings of lectures for the delivery of accounting courses.   | 2.22         | 2.22        | 2.31        | 2.25        | LE        |
| 11.               | Google Meet is used for the presentation of calculations in the delivery of accounting courses.        | 2.14         | 2.42        | 2.42        | 2.33        | LE        |
| 12.               | Google Meet is used for real-time question-and-answer sessions for the delivery of accounting courses. | 2.23         | 2.36        | 2.28        | 2.29        | LE        |
| <b>Grand Mean</b> |                                                                                                        |              |             |             | <b>2.30</b> | <b>LE</b> |

Source: Field Report, 2026.

The responses of the respondents in Table 3 indicated that items 7 - 12, with mean scores of 2.24, 2.33, 2.34, 2.25, 2.33 and 2.29, were rated at a low extent, respectively, implying that in the response of the respondents google meet is not used for introduction, delivery of expert's opinions on complex topics, sharing of lecture materials, instructional recordings of lectures, presentations of calculations and real time question and answer sessions for the delivery of accounting courses. The grand mean of 2.30 indicates a low extent of application of Google Meet for instructional delivery of accounting courses amongst university Business Education lecturers in Rivers State.

**Table 4: Summary of ANOVA on the difference in mean ratings of Business Education Lecturers in IAUE, RSU and UPH on the extent of application of Zoom for instructional delivery of accounting courses in Rivers State.**

| Source of Variance | Ss     | Df | Ms    | L/Significance | F-Cal | F-Crit | Decision |
|--------------------|--------|----|-------|----------------|-------|--------|----------|
| Between Groups     | 22.28  | 2  | 11.14 | .05            | 1.51  | 3.33   | Accepted |
| Within Groups      | 199.55 | 27 | 7.39  |                |       |        |          |

Source: Field Report, 2026.

The result in Table 4 shows that at degrees of freedom 2 and 27, the between-groups variance score and within-group variance score (between-groups mean square and within-group mean square) were 11.14 and 7.39, respectively. It also shows a calculated F-ratio of 1.51 less than the F-critical of 3.33 at the .05 level of significance. Thus, hypothesis 1 was accepted, implying that there is no significant difference in the mean responses of the respondent groups on the extent of the application of Zoom for the instructional delivery of accounting courses.

**Table 5: Summary of ANOVA on the difference in mean ratings of Business Education Lecturers in IAUE, RSU and UPH on the extent of application of Google Meet for instructional delivery of accounting courses in Rivers State.**

| Source of Variance | Ss     | Df | Ms    | L/Significance | F-Cal | F-Crit | Decision |
|--------------------|--------|----|-------|----------------|-------|--------|----------|
| Between Groups     | 28.12  | 2  | 14.06 | .05            | 1.63  | 3.33   | Accepted |
| Within Groups      | 232.50 | 27 | 8.61  |                |       |        |          |

Source: Field Report, 2026.

The result in Table 5 shows that at degrees of freedom 2 and 27, the between-groups variance score and within-group variance score (between-groups mean square and within-group mean square) were 14.06 and 8.61, respectively. It also shows a calculated F-ratio of 1.63 less than the F-critical of 3.33 at the .05 level of significance. Thus, hypothesis 2 was accepted, implying that there is no significant difference in the mean responses of the respondent groups on the extent of the application of Google Meet for the instructional delivery of accounting courses.

### Discussion

One of the findings of this study showed that all items relating to research question 1 were rated low extent, respectively, implying that in the responses of the respondents, Zoom is not used for introduction, delivery of experts' opinions on complex topics, sharing of lecture materials, instructional recordings of lectures, presentations of calculations and real-time question-and-answer sessions for the delivery of accounting courses. This indicated a low extent of the application of Zoom for the instructional delivery of accounting courses among university business education lecturers in Rivers State. This finding is in consonance with Okiridu and Okafor (2022), who revealed that video conferencing and recorded audio were applied to a low extent in the teaching and learning process of business education courses. It also agrees with Ukata and Agburuga (2024), who opined that the application of multimedia technologies by business education lecturers for teaching accounting courses is at a very low extent. This generally affects the delivery system of accounting and reduces the capturing of students' attention in the instructional delivery of accounting courses through the application of multimedia resources, as Zoom helps improve teaching and learning.

The result on hypothesis 1 proved that there is no significant difference in the mean responses of the respondent groups on the extent of the application of Zoom for the instructional delivery of accounting courses. This indicated that the application of Zoom for the instructional delivery of accounting courses is low. An indication that business education lecturers across the 3 institutions studied rarely apply Zoom for the instructional delivery of accounting courses.

The study also showed that all items relating to research question 2 were rated low extent, respectively, implying that, in the responses of the respondents, Google Meet is not used for introduction, delivery of expert's opinions on complex topics, sharing of lecture materials, instructional recordings of lectures, presentations of calculations and real-time question-and-answer sessions for the delivery of accounting courses. This indicated a low extent of application of Google Meet for instructional delivery of accounting courses amongst university Business Education lecturers in Rivers State. This finding aligns with Nwosu et al. (2024), who asserted that Video conferencing and multimedia projectors seem not to be fully applied by business educators for improving the teaching of business education in tertiary institutions. This shows that instructional delivery of accounting courses requires the application of video conferencing tools to improve teaching and to be able to gain students' attention for better delivery.

The result on hypothesis 2 proved that there is no significant difference in the mean responses of the respondent groups on the extent of the application of Google Meet for the instructional delivery of accounting courses. This indicated that the application of Google Meet for the instructional delivery of accounting courses is low; An indication that business education lecturers across the 3 institutions studied rarely apply Google Meet for the instructional delivery of accounting courses.

### Conclusion

Advancements in technology have made video conferencing tools dependable and effective platforms for facilitating teaching and learning in contemporary educational settings. Lectures, presentations, as well as meetings can take place

successfully online using video conferencing tools. This study revealed that despite the enormous benefits of the application of video conferencing tools, the application of such tools like Zoom and Google Meet for instructional delivery of accounting courses among university business education lecturers is low. It indicates that business education lecturers who take accounting courses rarely use video conferencing tools for the instructional delivery of accounting courses.

### Recommendations

Based on the findings of this study, the following recommendations were made:

1. University administrators and business education lecturers should ensure the application of Zoom for the instructional delivery of accounting courses, as this will help with effective teaching and learning as well as full coverage of the course content, especially where it is challenging for all parties involved to meet physically as required.
2. University administrators and business education lecturers should ensure lecturers are trained in the use of Google Meet and other video conferencing tools to encourage their application for the instructional delivery of accounting courses as this will help for effective delivery of accounting courses.

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