

Received: December 2023 Accepted: January 2024

DOI: <https://doi.org/10.58262/ks.v12i2.435>

## Development of Textbook in Machine Shorthand for Bachelor of Science in Office Administration (BSOA)

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### **Abstract**

*This study was focused on the development of a textbook in Machine Shorthand for the Bachelor of Science in Office Administration (BSOA) program. Machine Shorthand is a course that trains students to take dictation at a speed beyond the limits of manual shorthand with the use of a stenograph machine. The study sought to determine the availability of instructional materials (IM) in Machine Shorthand, the accuracy of the IM considering the course objectives as specified in Commission in Higher Education (CMO) 19, series of 2017, and the effectiveness of the available IM in terms of content, presentation, and format. The study utilized the ADDIE (Analysis, Design, Develop, Implement, and Evaluate) model in developing the instructional material. The descriptive development method was used in the study, percentage technique and weighted mean were employed to interpret the results of the study. Using total population sampling, the data were collected from BSOA students of Camarines Sur Polytechnic Colleges (CSPC) who took up Machine Shorthand and BSOA faculty teaching the same course in different schools in the Rinconada area. Results showed that the availability of the IM in Machine Shorthand was assessed as rarely available, however, the available IM was evaluated as accurate considering the course objectives as specified in CMO 19, series of 2017 while the effectiveness of the available IM in terms of content, presentation, and format was considered effective, respectively. Based on the results of the study, a proposed textbook in Machine Shorthand for the Bachelor of Science in Office Administration (BSOA) program was developed to strengthen the knowledge and skills of the BSOA students and enhance their learning capabilities and mastery in the use of the steno machine.*

**Keywords:** *Stenography, instructional material, development, teaching and learning.*

### **1 | Introduction**

For decades now, fast changes have been taking place in all facets of human life including the office environment. This is because of technological advancement. As a result of changes in technology, the role of secretaries in business has changed tremendously from that of keyboarding and shorthand dictation, answering telephone calls, and processing of mails. Today's office professionals are exposed to office technology including the internet that makes work much easier and knowledge more accessible (Edwin, 2008).

Office professionals now have many technologically advanced office gadgets to ease their jobs and enhance proficiency and productivity leading to improved access to goods and services globally. There is a wide range of office machines and equipment which now enable secretaries to improve their performances. Such new machines take the form of electronic typewriters or

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computers that have replaced the manual ones. Word processors with multi-purpose facilities, computers, and other sophisticated office machines and equipment are now provided by employers. Some of the physical equipment used by secretaries includes computer communication equipment and electronic pocket organizers. New technological equipment that has altered the procedures and techniques for office functions include computers, electronic mail commerce, voice mail, and the Internet.

Machine Shorthand is one of the equipment used by office professionals, particularly in legal offices. It is a specially designed machine which is used for taking shorthand. Many court reporters use stenograph machines to quickly and accurately record testimony, and the devices are also used by students to take notes and closed captioners who want to be able to quickly write captions for live broadcasts.

The demand for good secretaries who can take dictations and transcribe rapidly and accurately is increasing daily and all indications are that this demand will continue to grow in the years ahead. A major reason for this is that shorthand is such a convenient tool, the entire shorthand writers need a pad and a pen or steno machine in courts) and shorthand can be written anytime and anywhere.

Obviously, steno is a vital skill for a secretary; it is also valuable as a personal use tool. Once you have learned it you will have a lifelong skill. It can also help you to obtain an interesting and profitable position. Stenography has been indispensable in business, profession, vocation, and administration whenever it is desirable to have a quick and verbatim record of the spoken words. The skills acquired in the school should match the skills required in the job market. Obtaining skills combined with an achiever's attitude and the qualities needed in the job market, fresh graduates have early employment opportunities in the field of stenography.

It is in this regard that CHED Memorandum Order No. 19 Series of 2017 Revised Policies and Standards for Bachelor of Science in Office Administration embedded Machine Shorthand as one of the core courses of the BSOA program to respond to the needs of the industry and the stakeholders. This course trains the students to take dictation at a speed beyond the limits of manual shorthand with the use of a Stenograph Machine. It prepares the students to be court stenographers. At the end of the semesters, the students are expected to memorize letters and letter combinations used in materials in communication in legal offices and courts. Take dictation at the rate of 100-120 words a minute with the use of a stenograph machine and use both hands efficiently in working with the stenograph machine.

The Camarines Sur Polytechnic Colleges (CSPC) is one of the higher education institutions offering a Bachelor of Science in Office Administration (BSOA). It is a four-year program that prepares the students for a career in an outcome-focused, technology-rich, professional environment. Course in the curriculum are those that will thoroughly familiarize the students with current techniques in office practice and procedures, developments in-office system and technology, good team working and management skills, and application of the principles of good human relation and communication to prepare them to be key players in day to day office operations. One of the core courses offered is Machine Shorthand to attain the objectives of the program.

The researcher, being one of the faculty teaching Machine Shorthand finds it difficult to look for the latest edition of books in Machine Shorthand both in the Philippines and in a foreign country. Likewise, students find the course to be difficult due to the unavailability of reference materials. It is along with this reason that the researcher is inspired to develop an instructional material (IM) in

Machine Shorthand for Bachelor of Science in Office Administration to facilitate effective learning by providing acquisition and mastery principles and techniques that will enable the students to improve their academic performances, particularly in Machine Shorthand.

## **2 | Statement of the Problem**

This study aimed to develop a textbook in Machine Shorthand for the BSOA program. Specifically, the study sought to answer the following questions:

1. What is the availability of the instructional materials (IM) in Machine Shorthand?
2. What is the accuracy of the available IM considering the course objectives as specified in the CMO 19, series of 2017?
3. What is the effectiveness of the available IM in terms of:
  - a. Content
  - b. Presentation
  - c. Format
4. What instructional material can be developed for the Bachelor of Science in Office Administration (BSOA) program?

## **3 | Methodology**

The descriptive-development method was used in this study. It has been defined as the systematic study of designing, developing, and evaluating instructional programs, processes, and products that must meet criteria of internal consistency and effectiveness. Developmental research is particularly important in the field of instructional technology (Jackson 2009). The necessary data was gathered using a questionnaire. Self-made questionnaires were framed.

The respondents of the study were the one hundred five (105) BSOA fourth-year students who took up Machine Shorthand course in Camarines Sur Polytechnic Colleges (CSPC) and six (6) BSOA faculty teaching the same course in CSPC and different schools of Rinconada area. There were one hundred eleven (111) total respondents. The questionnaire was prepared by the researcher based on the objectives of the study. After the questionnaire was framed, it was shown to seasoned researchers for checking and suggestions were incorporated.

## **4 | Results and Discussion**

The data were presented in a tabular form followed by a textual interpretation in order to provide better insight into the study. The analysis of the data serves as the basis in formulating the conclusion and recommendation of the study.

### **4.1 | Availability of Machine Shorthand Textbook**

Table 1 shows the responses of the respondents on the availability of instructional materials in Machine Shorthand. It further shows that the availability of IM in the library has a weighted mean of 2.72 interpreted as sometimes available, availability of reference materials in the library has a weighted mean of 2.74 interpreted as sometimes available, availability of IM in bookstores has a weighted mean of 2.74 interpreted as sometimes available, availability of Online/internet sources with a weighted mean of 2.38 interpreted as rarely available, Availability of library linkage on IM has a weighted mean of 1.74 interpreted as not available.

**Table 1:** Availability of Instructional Materials (IM) in Machine Shorthand.

| Indicators   | Weighted Mean | Interpretation      |
|--|---------------|---------------------|
| Availability of IM in the library, pls indicate the edition, if any. | 2.72          | Sometimes Available |
| Availability of reference materials in the library                   | 2.74          | Sometimes Available |
| Availability of IM in bookstores                                     | 2.14          | Rarely Available    |
| Availability of Online/internet sources                              | 2.38          | Rarely Available    |
| Availability of Library linkages                                     | 1.74          | Not Available       |
| Average Weighted Mean  | 2.34          | Rarely Available    |

As a result, the average weighted mean on the availability of Machine Shorthand Textbook is 2.34 interpreted as *rarely available*. This entails that books in Machine Shorthand have become entirely saturated and no author has published a new that is why it is increasingly difficult to make books stand out in libraries, bookstores, and online sources which makes the teaching and learning delivery a bit harder. Without books on a subject, students may have partial access to introductory information, theories, and concepts in Machine Shorthand. This can deter their ability to gain an inclusive understanding of the subject. These findings are congruent with the study of John Lawrence Tety (2016) that the teachers consider instructional materials as key to academic performance. This implies that the schools with the inadequacy of instructional materials and instructors are likely to perform low whereas schools with adequate instructional materials and instructors are likely to perform high. However, in the absence of books, students may rely on alternative sources such as journal articles, online resources, lectures, or personal expertise. While these sources can be valuable, they may not always provide the same depth or breadth of information as books.

#### 4.2 | Accuracy of available Machine Shorthand Textbook

Table 2 shows the responses of the respondents on the accuracy of available instructional materials in Machine Shorthand. The data reveals the accuracy of memorizing letters and letter combinations used in materials and communications in legal offices and courts has a weighted mean of 2.82 interpreted as accurate, familiarize brief forms, phrases, and abbreviation has a weighted mean of 2.68 interpreted as accurate, learn to transcribe steno alphabet letters, brief forms, phrases, and abbreviations has a weighted mean of 2.81 interpreted as accurate, take dictation at the rate of 100-120 words a minute with the use of Stenograph Machine has a weighted mean of 2.25 interpreted as accurate, and use of both hands efficiently in working with the Stenograph Machine has a weighted mean of 2.51 interpreted as accurate.

**Table 2:** Accuracy of Available Machine Shorthand Textbook.

| Indicators   | Weighted Mean | Interpretation |
|--|---------------|----------------|
| Memorize letters and letter combinations used in materials and communications in legal offices and courts. | 2.82          | Accurate       |
| Familiarize brief forms, phrases, and abbreviation   | 2.68          | Accurate       |
| Learn to transcribe steno alphabet letters, brief forms, phrases, and abbreviations.                       | 2.81          | Accurate       |
| Take dictation at the rate of 100-120 words a minute with the use of a Stenograph Machine.                 | 2.25          | Accurate       |
| Use of both hands efficiently in working with the Stenograph Machine,                                      | 2.51          | Accurate       |
| Average Weighted Mean  | 2.61          | Accurate       |

Based on the data presented the responses of the respondents on the accuracy of available instructional materials in Machine Shorthand have an average weighted mean of 2.61 interpreted as *accurate*. This implies that although the IMs on Machine Shorthand are rarely available, the content of the available book as required by CMO 19, series of 2017 was accurate and relevant. The accuracy of steno books is very important in developing speed and accuracy in machine shorthand. A textbook is often considered a main source of data in educational settings. If the information presented is inaccurate, it demoralizes the integrity of the textbook and can lead to misinformation among students. Effiong, Oji Ekpo, Igiri Charles E. (2015)

stipulates that accurate presentation of good instructional materials and the methodology employed by the teacher will enhance a good understanding of the subject matter.

### 4.3 | Effectiveness of the available Machine Shorthand Textbook

Table 3 exemplifies the effectiveness of the available Machine Shorthand textbook in terms of its content, presentation, and format.

#### 4.3.1 | Content

It shows that lessons aligned with the course objectives have a weighted mean of 3.06 interpreted as effective, content appears accurate, clear, and in sequential order has a weighted mean of 2.97 interpreted as effective, the textbook contains no grammatical, spelling, or other typographical errors has a weighted mean of 2.99 interpreted as effective, many opportunities are provided for students to practice essential skills has a weighted mean of 3.13 interpreted as effective, Suggest aids for the teaching of pronunciation, e.g. phonetic sounds has a weighted mean of 3.20 interpreted as effective.

Consequently, the average weighted mean along effectiveness of the available Machine Shorthand textbook in terms of its Content is 3.07 interpreted as *effective*. This shows that the content of IM in Machine Shorthand is sufficient to effectively address the learning objectives of the course. The underlying result corresponds to that of Gerson (2000) that clarity in the text is mandatory and regarded as the most effective criterion for effective instructional material (IM). Terano (2015) stressed that the focus on the tertiary curriculum should not only be on the theoretical aspects but also on the skills that involve activities that will enhance the critical thinking of students. In the same manner, Jintalan (2017) specified that one of the attributes that contributed effectively to the graduates is the academic factors which include logical skills that are essential to measuring students' learning process. That goes to show that books are valuable resources for acquiring and honing skills that contribute to the development of their analytical and problem-solving abilities.

The content of the book serves as a pool of information, providing students with insights, facts, theories, and perspectives on stenography Well-organized and informative content helps individuals deepen their understanding, broaden their perspectives, and acquire new skills.

**Table 3:** Effectiveness of the available Instructional Materials in Machine Shorthand.

| Content  | Weighted Mean | Interpretation   |
|--|---------------|------------------|
| Lessons are aligned with the course objectives   | 3.06          | Effective        |
| Content appears accurate, clear, and in sequential order.                                      | 2.97          | Effective        |
| Textbook contains no grammatical, spelling, or other typographical errors.                     | 2.99          | Effective        |
| Many opportunities are provided for students to practice essential skills.                     | 3.13          | Effective        |
| Suggest aids for the teaching of pronunciation, e.g. phonetic sounds                           | 3.20          | Effective        |
| Average Weighted Mean  | 3.07          | Effective        |
| Presentation   |               |                  |
| Textbook is organized appropriately within the units of study                                  | 3.12          | Effective        |
| Provide balance activities for hands-on  | 3.18          | Effective        |
| Activities are appropriate and challenging   | 3.22          | Effective        |
| Materials provide students with opportunities to integrate skills and concepts.                | 3.16          | Effective        |
| Textbook provides accessible and structured text and images to meet the needs of the learners. | 3.15          | Effective        |
| Average Weighted Mean  | 3.17          | Effective        |
| Format   |               |                  |
| Format design includes titles, subheadings, and appropriate cross-referencing for ease of use. | 3.10          | Effective        |
| Textbook is easily divisible into smaller sections in order to enable modularity               | 3.09          | Effective        |
| Visuals are accurate, support the text, and enhance student understanding.                     | 3.26          | Highly Effective |
| Tasks move from simple to complex  | 3.15          | Effective        |
| The format is compatible to the interest of the learners                                       | 3.20          | Effective        |
| Average Weighted Mean  | 3.16          | Effective        |

Generally, the average weighted mean along effectiveness of the available Machine Shorthand

textbook in terms of its Presentation is 3.17 interpreted as *effective*. This means that the presentation of the machine shorthand strokes, brief forms, and phrases are relevant which supports the objective of the course. The presentation of the lessons is in good order and with the pedagogic skill necessary for the Machine Shorthand course. One of the key elements in developing speed and accuracy in machine shorthand is its presentation. According to Petterson (2003), the clarity and coherence with which the information in graphic visualizations is presented, a layout that guides the reader through the resources and enables them to identify relevant information, visual and textual linking between related materials, and reader-friendly typography. The presentation of a book's content is important because it affects reader insights, openness, engagement, and long-term impact. A well-presented book not only attracts attention but also enhances the reading experience.

### 4.3.2 | Format

The result exposes that format design includes titles, subheadings, and appropriate cross-referencing for ease of use has a weighted mean of 3.10 construed as effective, the textbook is easily divisible into smaller sections in order to enable modularity has a weighted mean of 3.09 interpreted as effective, visuals are accurate, support the text, and enhance student understanding has a weighted mean of 3.26 construed as highly effective, tasks move from simple to complex has a weighted mean of 3.15 construed as effective, the format is compatible to the interest of the learners has a weighted mean of 3.20 construed as effective.

As a result, the average weighted mean along with the effectiveness of the available Machine Shorthand textbook in terms of its Format is 3.16 interpreted as *effective*. This infers that the arrangement of the available IM in Machine Shorthand is suited to the needs of the students. A balanced layout and proper steno strokes are important ingredients to motivate the students to read and do more practice using machine shorthand. The author must consider these factors when deciding on the format of a book to ensure it meets the needs and preferences of its intended audience.

According to Morgan, well-designed textbooks have the potential to make learning more fun, lasting, and meaningful and may actively engage learners' cognition in many ways, through such mechanisms as visual processing, analytical thinking, posing questions, testing hypotheses, and verbal reasoning. The results are congruent to the theory of Watson which states that the content of the instructional material is assembled and incorporated into the design to produce the instructional or performance support materials. Deliverable is reviewed for quality.

The effectiveness of an available textbook is crucial for the success of teaching and learning processes. It should absorb students' interest in the subject matter. It should include relevant and engaging examples of brief forms, phrases, and other shorthand principles to captivate students' attention and encourage active participation in learning.

The textbook entitled Introduction to Machine Shorthand Theories and Practices was developed based on the result of the research study, following the systematic procedure and guided by CHED Memorandum Order No. 19 Series of 2017 Revised Policies and Standards for Bachelor of Science in Office Administration to make it suitable to the learning abilities of the students enrolled in Machine Shorthand course. Main topics of the textbook includes Lessons 1 to 26 that aims the students to be familiarized with the letters, consonant compounds, and abbreviations, master the proper home key position and press words and letters using the machine steno typing with speed and accuracy.

## 5 | Conclusion

The design of the textbook in Machine Shorthand is needed to ensure continuous enhancement of the BSOA curriculum. The available instructional materials in Machine Shorthand are rarely available, however, it is considered accurate in terms of the objectives set by the CMO 19 series of 2017. The effectiveness of the available IM in terms of content, presentation, and format was considered effective, respectively. The textbook in Machine Shorthand for the BSOA program was carefully developed to address the need for the unavailability of instructional materials and to aid in the teaching-learning process of the course.

## 6 | Recommendations

The proposed textbook in Machine Shorthand can be used in various higher education institutions offering Bachelor of Science in Office Administration (BSOA) program to aid in the teaching-learning process. Conducting a study on the acceptability of developed textbooks is recommended to ensure relevance, quality, user satisfaction, pedagogical effectiveness, accessibility, compliance with standards, and continuous improvement. It plays a critical role in the development of educational materials that effectively support teaching and learning objectives. Further, the study can be done to improve the content, presentation, and format of the instructional material. This study can likewise be used as a point of reference for future studies on the Machine Shorthand course.

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