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Acceptability of Textbook in Machine Shorthand for Bachelor of Science in Office Administration (BSOA) Program

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KEYWORDS Assessment. Content. Format. Instructional Material. Presentation

ABSTRACT This study investigates the acceptability of the developed textbook in the Machine Shorthand course within the Bachelor of Science in Office Administration (BSOA) Program. Utilising descriptive research design, the validated evaluation instrument and the textbook were distributed to one hundred and fifty-two (152) total respondents including faculty and students to assess its acceptability along with content, organisation/presentation, format, and assessment. The findings indicated a high level of acceptability of the textbook across these indicators. Minor revisions were implemented to ensure that the content remains accurate, relevant, and up-to-date with the latest knowledge, skills, and developments in the field of office management.

INTRODUCTION

Education is an important factor that plays a vast part in the recent and advanced world. Individuals need upright instruction to be able to live in the competitive world and to develop a viewpoint in life. It helps to discover new ideas and creativity to be able to contribute to the growth of the nation. Education is a system, and teaching is part of it. An ideal teacher should give importance to the delivery of education and put a high value on the learning abilities of the students. Henceforth, teachers must employ an effective and diverse teaching strategy to transfer knowledge to the students. One of these approaches is to craft educational materials that will aid in the teaching learning process.

Mustapha et al. (2022) specified educational materials as pedagogy resources that are used by an educator to support giving necessary data for the achievement of the essential learning practice. Thus, educational materials are all the resources that are being used by an educator as part of the teaching procedure to bring effective and positive instruction that can enable constructive student learning outputs. Thus, they are all resources purposely used by an educator to influence students' learning during education.

The National Court Reporters Association (NCRA) defines Machine Shorthand as a method of quickly capturing spoken language using a specialised keyboard, typically used by court reporters and closed captioners. It involves a chorded keyboard where multiple keys are pressed simultaneously to create outlines representing sounds, words, or phrases. This allows for extremely fast transcription speeds, often exceeding 200 words per minute.

Machine shorthand is a technique of rapidly taking verbal language using a specialised keyboard called a stenotype machine. This technique is usually used by court reporters, captioners, and transcriptionists to generate precise records of verbal messages in actual time. The stenotype machine permits users to input numerous characters instantaneously by pressing combinations of keys. These keystrokes characterise phonetic sounds, words, or phrases, which are then decoded into text by specialised software.

Okoro (2018) discovered that the familiarity of stenography improves writing, reading, phonetics, spelling, and other language abilities. It is presumed that knowledge and skills in shorthand empower secretaries to develop proficiency in their responsibilities, expand their writing abilities, and simplify the recording of proceedings and transcription of spoken words.

The Commission on Higher Education (CHED) Memorandum Order No. 19 Series of 2017 Revised Policies and Standards for Bachelor of Science in Office Administration (BSOA) incorporated Machine Shorthand as one of the essential courses of the program to answer to

the needs of the sectors and other key players. This subject nurtures the learners to take oral dictation rapidly, beyond the limits of manual shorthand with the use of a Stenograph Machine. It equips the students to be stenographers. By the semester's end, students are also expected to competently transcribe dictations at speeds ranging from 100 to 120 words per minute using a stenographic machine, demonstrating expertise in using both hands effectively during transcription.

The Camarines Sur Polytechnic Colleges (CSPC) stands as one of the higher education institutions in the Philippines providing a Bachelor of Science in Office Administration (BSOA). In a span of four years, this curriculum prepares the students for a career in an outcome-based, technology-rich, specialised atmosphere. The courses in the curriculum are those that will systematically acquaint the students with up-to-date systems in office practice and procedures, advances in-office systems and technology, good collaboration and supervision skills, and application of the principles of good human relations and communication to prepare them to be key players in day-to-day office processes. One of the core courses offered is Machine Shorthand to achieve the objectives of the program.

The researcher conducted research on the Development of a Textbook in Machine Shorthand for BSOA Program to enable effective education by providing achievement and mastery principles and methods that will permit the students to progress on their academic progress. The results showed that the present book in Machine Shorthand is rarely available, yet, it is considered accurate in terms of the objectives set by CMO 19 series of 2017. The usefulness of the available IM in terms of content, presentation, and format was measured effectively. The effectiveness of the content, presentation, and format presents a vibrant impression that there is a smooth flow from lesson to lesson.

However, since the available book is rarely available, there is a need to develop a textbook in Machine Shorthand to aid in the teaching and learning process and to fit the learning needs of the students.

Objectives of the Study

This study aimed to determine the acceptability of a textbook in Machine Shorthand for the BSOA Program. Specifically, the study wanted to address the following objectives:

1. Evaluate the instructional material created for Machine Shorthand, aligning with the course objectives outlined in CMO 19, series of 2017.
2. Assess the acceptability of the developed textbook in Machine Shorthand along content, presentation/organisation, format and assessment.
3. Identify necessary revisions for improvement and refinement in the developed textbook.

METHODOLOGY

This section includes a discussion of the research design and method, respondents, research tools, data collection procedure, and the statistical methodology used.

Research Design and Method

This study utilised a descriptive research design. The participants answer questions administered through questionnaires. The researcher utiliseda scale for (4) highly acceptable, (3) acceptable, (2) slightly acceptable, and (1) not acceptable.

Respondents

The study comprised one hundred and forty-nine (149) BSOA students enrolled in the Machine Shorthand course, along with three (3) BSOA faculty members who taught the same course. In total, there were one hundred and fifty-two (152) respondents, both faculty and students from one state college in the Philippines. Their feedback not only contributed to the validation of the developed textbook but also ensured its practical applicability.

Research Instruments

The researcher crafted a questionnaire specifically for this study as the main data-gathering tool together with the developed textbook.

Data Gathering Procedure

After the validation of the questionnaire, the collection of data started. After the data was

gathered, analysis and interpretation of data followed immediately. Data gathered were supplemented by an informal interview to validate responses.

Statistical Tool

The weighted mean is used to consolidate the result based on the responses of the respondents. The computed mean rating was assessed based on the scale as shown in Table 1.

RESULTS

The textbook titled 'Introduction to Machine Shorthand Theories and Practices' was designed based on the findings of the research study conducted, following the organised process and directed 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.

A stenographer or steno machine is a specially designed machine that is used for taking shorthand notes. Many court reporters use steno machines to rapidly and precisely record testimony, and the machines are also used by students to take notes who want to be able to quickly write captions for live broadcasts. A high-quality stenograph machine is capable of networking with a computer and a microphone array, and such machines can be extremely expensive. Stenography is a special type of shorthand that operates phonetically. This means that a stenographic transcript is unique to the person who generated it, as each person hears and interprets sounds slightly differently. Typically, a stenograph machine is used to transcribe information such as a testimony, and then the stenotype clerk reads over the transcript and generates a full version that can be read by anyone.

The main topics of the textbook include Lesson Numbers 1 to 26, which aim for the students to familiarise themselves with the alphabet, consonants, abbreviations, and mastery of the proper home key position, and press words and letters using the steno machine with speed and accuracy. The content of the textbook comprises the following:

- Preface
- When the Stenograph was Invented
- Learning Objectives
- The Steno Machine Keyboard
- Sitting Position at the Shorthand Machine
- Placement of Fingers on the Keyboard
- Basic Steno Machine Key Groups
- Steno Alphabet
- Keyboard Positions
- Vowels
- Keyboard Positions
- Lesson 1: Letters A, Long A and Number 5
- Lesson 2: Initial B and the Final B
- Lesson 3: Initial C and Asterisk
- Lesson 4: Initial D and the Final D
- Lesson 5: Vowel E and Long E
- Lesson 6: Initial F, Final F and Number 6
- Lesson 7: Initial G and Final G
- Lesson 8: Letter H and Number 4
- Lesson 9: Letters I and Long I
- Lesson 10: Initial J and Final J
- Lesson 11: Initial K, Final K, and KH
- Lesson 12: Initial L, Final L, Number 8, and Blends BL, FL, GL, KL
- Lesson 13: Initial M and Final M
- Lesson 14: Initial N and Final N
- Lesson 15: Letters O, Long O, Diphthongs OI and OO, and Number 0
- Lesson 16: Initial P, Final P, Number 3, Number 7, and Blend PL
- Lesson 17: Letter Q
- Lesson 18: Initial R, Final R, and Blends BR, DR, FR, GR, KR, PR

Table 1: Rating scale and interpretation of instructional material quality

Scale	*Range*	*Interpretation*	*Description*
4	3.26 - 4.00	Highly acceptable	All aspects of instructional material are very adequately covered, and the quality is superior.
3	2.51 - 3.25	Acceptable	The major parts of the instructional material are covered with average standards.
2	1.76 - 2.50	Slightly acceptable	The major aspects of instruction are covered with the least acceptability.
1	1.00 - 1.75	Not acceptable	The major aspects of instructional material are very inadequately covered and of unacceptable value.

- Lesson 19: Initial S, Final S, Number 1, and Blends SH, SK, SL, SM, SN, SP
- Lesson 20: Initial T, Final T, Number 2, Number 9 and Blends TH, TR, ST
- Lesson 21: Letters U, Long U, and Diphthongs AU and OU
- Lesson 22: Letter V
- Lesson 23: Initial W and Blends WH, WR, SW, TW
- Lesson 24: Letter X
- Lesson 25: Letter Y
- Lesson 26: Initial Z and Final Z
- References

The development of this instructional material for Machine Shorthand is necessary to foster effective and efficient instruction through its tailored, engaged, and aligned learning materials that support the Bachelor of Science in Office Administration Program. By leveraging instructional materials effectively, educators can create dynamic learning environments that foster student engagement, enthusiasm, and success. However, this developed textbook needs to be evaluated to check its accuracy. Similar to the findings of Cagomoc (2022) opines that learning materials should be used in the conduct of teaching and learning taking into account the effects, ability, economics, and usability. It should also be sustained, strongly endorsed, and suggested in the present educational setting. Educators must unceasingly endeavour to craft and validate learning materials and learning approaches. However, it is suggested further that the resources must be guaranteed in terms of their reliability by exposing them to the content and external validity criteria (Avila and Lavadia 2019).

Acceptability of Textbook in Machine Shorthand along with Content

Delineated in Table 2 is the acceptability of the textbook along with the content. It has to do with the alignment of core standards and objectives to ensure that the students meet specific expectations as they develop stenography skills. Reflected too in the Table are the mean scores and their corresponding acceptability level as pronounced by the respondents.

Noticeably, out of eight (8) criteria for content, seven (7) indicators got a descriptive rating of *highly acceptable* with a mean score rating from 3.50 to 4.0.

Moreover, there is one (1) indicator that obtained the acceptability level of *acceptable*, that is, the textbook contains no grammatical, spelling, or other typographical errors. There were minor errors found in the developed textbook in Machine Shorthand, however, the overall total mean score of 3.67 in terms of content is *highly acceptable*.

This would imply that the textbook was able to carry out the objectives of the course with ease and practically commendable when it comes to the alignment of the lessons to CMO, the development of critical thinking, the discussions of the lessons appear accurate, clear, and in sequential order, terms used are easy to understand, exercises are provided for the students to practise essential skills, suggest aids for the teaching of pronunciation, for example phonetic sounds, and examples of shorthand strokes were given.

Further, it implies that the content presents a clear idea and that there is a logical relationship

Table 2: Acceptability of textbook in machine shorthand along with content

Indicators	*Weighted mean*	*Descriptive rating*
Lessons are aligned with the course objectives as specified in the CMO	3.60	Highly acceptable
Development of critical thinking	3.50	Highly acceptable
Discussions of the lessons appear accurate, clear, and in sequential order	4.0	Highly acceptable
Terms used are easy to understand	3.46	Highly acceptable
The textbook contains no grammatical, spelling, or other typographical errors	3.25	Acceptable
Exercises are provided for the students to practise essential skills	4.0	Highly acceptable
Suggest aids for the teaching of pronunciation, for example, phonetic sounds	3.68	Highly acceptable
Examples of shorthand strokes were given	4.0	Highly acceptable
Average Weighted Mean	**3.67**	**Highly acceptable**

Range: 3.26 - 4.00: Highly Acceptable; 2.51 - 3.25: Acceptable; 1.76 - 2.50: Slightly Acceptable; 1.00 - 1.75: Not Acceptable
Source: Author

and smooth flow of ideas from lesson to lesson and is relevant to the BSOA program and provides for individual differences for the learners. The developed textbook is highly acceptable along with its content and the suitability is attained considering that the CHED course objectives were used as a guide in crafting the textbook to guarantee that the required standard competencies and skills are met.

These findings seem to equate with the view of Dye (2021) who claimed that when preparing any learning materials, the teacher must ensure the content used in the materials is valid, should be geared to the appropriate level of the students, should be engaging and suitable for use in the classroom or other learning environment, and may enable the learner to take away the material for future reference and discussion. The findings align with the results of the study by Portana et al. (2021), which indicated that instructional materials developed by CMBT faculty were deemed acceptable in terms of content, understanding procedural knowledge and application, practical applications, clarity, alignment, and the development of higher-order thinking skills, with the exception of the friendliness of figures.

Furthermore, Molano (2020) in his research study determined that the developed innovative instructional material was found to be very acceptable in terms of its objectives, contents, and clarity. However, Espiritu and Ogerio (2020) in their study found that though the developed instructional material was highly clear and simply understood, the level of contextualisation can still be enhanced.

Acceptability of Textbook in Machine Shorthand along with Presentation/Organisation

Furthermore, presented in Table 3 is the acceptability of the textbook in Machine Shorthand along with Presentation/Organisation. Interestingly, it can be noted that out of eight (8) indicators, seven (7) of which advanced to the *highly acceptable* level with mean scores ranging from 3.26 to 4.0. Furthermore, one (1) indicator, which is that the textbook provides accessible and structured text and images to meet the needs of the learners, attained a weighted mean of 3.2 interpreted as *acceptable*.

This implies that the textbook had met the criteria and standards for the quality and applicability of the material. This also entails that the presentation and organisation of the textbook are appropriate to the students' level of understanding and would help in improving their academic performances. The result also affirms the findings of Nabayra (2020) that in developing educational material it can be advantageous to keep the presentation and organisation clearly in focus to warrant that the student is supported in taking a dynamic role in constructing the relevant knowledge.

Basibas (2020) exposed that the context, particularly the presentation and organisation of the instructional material, will encourage the students to express new concepts that can be useful for practical development and it should be taken into consideration. Presentation and organisation of instructional material encourage students' drive and involvement since topics are well-organised and planned broadly, and the

Table 3: Acceptability of textbook in machine shorthand along with presentation/organisation

Indicators	*Weighted mean*	*Descriptive rating*
The textbook is organised appropriately within the units of study	3.75	Highly acceptable
Provide balanced activities for hands-on experience	3.80	Highly acceptable
Activities are appropriate and challenging	3.50	Highly acceptable
Materials provide students with opportunities to integrate skills and concepts	3.26	Highly acceptable
The textbook provides accessible and structured text and images to meet the needs of the learners	3.20	Acceptable
The simplicity of the design	4.0	Highly acceptable
Orderly presentation of the lessons/activities	3.85	Highly acceptable
Clarity of explanation of the shorthand strokes	3.55	Highly acceptable
Average Weighted Mean	**3.61**	**Highly acceptable**

Range: 3.26 - 4.00: Highly Acceptable; 2.51 - 3.25: Acceptable; 1.76 - 2.50: Slightly Acceptable; 1.00 - 1.75: Not Acceptable
Source: Author

information learned is applied. Real-world, user-friendly, and easy-to-understand learning materials are paramount in its progress (Inarda 2023).

Acceptability of Textbook in Machine Shorthand along with Format

Table 4 shows the acceptability of the textbook in Machine Shorthand along format. The result exposes that all the indicators were judged as *highly acceptable*. This implies that the format provides consistency, pays out clearly, and makes the textbook readable and comprehensible to the BSOA students.

This is indicative of the good quality format of the developed textbook. The respondents considered the advantage side of the textbook in the day-to-day conduct of the lessons. The researcher also made certain that the format of the proposed textbook is well-suited to the varying benefits and bits of knowledge of the BSOA students. The findings confirm the notion that the impact of practice and the reading context are far more significant for the readers in choosing a format for the learning material (Kampen 2019). Likewise, the format's suitability depends on the specific function of the educational material and the specific need. Reading attitudes are also determined by the personal perception of the specific functions of book formats (Alexandrov 2020).

Acceptability of Textbook in Machine Shorthand along with Assessment

Table 5 shows the computed weighted mean on the level of acceptability of the developed textbook concerning assessment. As can be gleaned in the Table the average weighted mean obtained from the respondents is 3.64 verbally interpreted as *highly acceptable.* Indicator number 1 for relevant assessments to the discussion, was the highest rank since it obtained a

Table 4: **Acceptability of textbook in machine shorthand along with format**

Indicators	*Weighted mean*	*Descriptive rating*
Format design includes titles, subheadings, and appropriate cross referencing for ease of use	3.86	Highly acceptable
Textbook is easily divisible into smaller sections to enable modularity	3.28	Highly acceptable
Visuals are accurate, support the text, and enhance student understanding.	3.87	Highly acceptable
Tasks move from simple to complex	3.50	Highly acceptable
The format is compatible with the interest of the learners	4.00	Highly acceptable
Clearly convey the idea or thoughts in the illustrations	3.75	Highly acceptable
Show appropriate schematic shorthand strokes	3.85	Highly acceptable
Average weighted mean	**3.73**	**Highly acceptable**

Range: 3.26 - 4.00: Highly Acceptable; 2.51 - 3.25: Acceptable; 1.76 - 2.50: Slightly Acceptable; 1.00 - 1.75: Not Acceptable
Source: Author

Table 5: **Acceptability of textbook in machine shorthand along with assessment**

Indicators	*Weighted mean*	*Descriptive rating*
Assessments are relevant to the discussion	4.0	Highly acceptable
Assessments are accurate, support the text, and enhance student understanding.	3.68	Highly acceptable
Assessments move from simple to complex	3.55	Highly acceptable
The assessment took into account the context of the particular subject that has been discussed.	3.75	Highly acceptable
Clearly convey the idea or thoughts in the questions or activity	3.45	Highly acceptable
Assessment is accurate, consistent, and repeatable.	3.45	Highly acceptable
Assessment results in learning what is important and is authentic and worthwhile.	3.36	Highly acceptable
Assessment is practicable in terms of time, resources, and student numbers.	3.90	Highly acceptable
Average Weighted Mean	**3.64**	**Highly acceptable**

Range: 3.26 - 4.00: Highly Acceptable; 2.51 - 3.25: Acceptable; 1.76 - 2.50: Slightly Acceptable; 1.00 - 1.75: Not Acceptable
Source: Author

weighted mean of 4.0, verbally interpreted as *highly acceptable.* While assessment results in learning, what is important and is authentic and worthwhile are that the least in rank with a weighted mean of 3.36 interpreted as *highly acceptable*. The findings described that the textbook indeed utilised several types of tests in the assessment of student performance. Likewise, it implies that the textbook surpassed the criteria and ideals for the quality and applicability of the learning material.

However, Kurt (2020) recommended that the learning pedagogies and assessments of the textbook must be constant and have an accurate alignment with the learning objectives. This is to give a reliable understanding to both teacher and learners as to what is going to be taught and learned and how it will be assessed. The findings are consistent with the Supplementary Learning Material (SLM) study by Galicha et al. (2022), which found that the remaining indicators received high ratings. This suggests that the activities and assessments are well-planned and thoughtfully designed to foster the development of learners' creativity.

The educational implication of these findings is that textbooks are an essential factor of teaching and learning. As a result, all parties involved in evaluating the worth of textbooks must exercise due diligence to ensure that the textbooks used by students are appropriate for their skills and deliver significant advantages and positive outcomes. Publishers and authors of textbooks must guarantee that the books they produce meet the criteria for a good book in terms of appearance, content, rating system, and language utilised, as well as having a positive influence. Additionally, authors or publishers must change textbooks on a periodic basis to improve or enhance the quality of textbooks based on input from students regarding the findings of textbook research such as this (Pasaribu 2022).

Revisions on the Developed Textbook for Machine Shorthand

The developed textbook serves as an important vehicle for students to gain knowledge, skills, and confidence in learning. Based on the findings of the study minor revisions were made to ensure that the students have the necessary foundation for learning and a referential base for deeper learning in Machine Shorthand.

Content

The content of the developed textbook was enhanced to ensure conformity and alignment with the BSOA curriculum aims and objectives, particularly in Part Two of the book, which contains exercises in Lessons 1 to 26. Grammar, spelling, and other typographical errors were given more emphasis considering the findings.

Presentation

The difficulty level of the lessons was adjusted to balance the students' progression. To ensure that it is consistent with the curriculum requirements and the cognitive level of students, Lessons were presented from A to Z. Appropriate consideration in the exercises is given considering that students have limited knowledge of the Machine Shorthand. The presentation of the textbook was revised to ensure that there is continuity in the development of concepts and skills to facilitate a smooth transition between each lesson or exercise.

Format

The result showed that the acceptability of the developed textbook in terms of format is highly acceptable. However, the cover page was revised, as it creates an instant impression to potential readers about the contents inside and draws attention to the BSOA students.

Assessment

This is a method used to evaluate, measure, and document the learning progress of the BSOA students in Machine Shorthand through the actual use of the stenograph machine. Though the result is highly acceptable in terms of assessment. More activities were added to improve the students' stenographic skills.

DISCUSSION

Objective No. 1 Evaluate the instructional material created for Machine Shorthand, align-

ing with the course objectives outlined in CMO 19, series of 2017.

The textbook "Introduction to Machine Shorthand Theories and Practices" is designed to help students master the skills needed to operate a stenograph machine efficiently. The textbook adheres to the guidelines provided by CHED Memorandum Order No. 19 Series of 2017 and aims to provide a comprehensive learning experience. However, the effectiveness and relevance of this instructional material must be critically evaluated, especially considering the rapid advancements in education, technology, and pedagogy.

Evaluation of the Textbook's Alignment with Current Trends and Research

Recent studies emphasize the need for instructional materials to be dynamic, accessible, and engaging to enhance student learning. According to Cagomoc (2022), educational materials should not only focus on the content but also consider factors such as economic feasibility, usability, and learner engagement. While the textbook appears to be aligned with these general principles, its evaluation requires a deeper exploration of current teaching practices and technological advancements.

Technology Integration: The rise of digital tools in education has led to a shift in how students engage with learning materials. Recent research shows that blended learning, which combines traditional methods with digital platforms, can greatly enhance student learning outcomes in technical fields like stenography (Dziuban et al. 2018). The textbook, which seems focused on a traditional paper-based approach, might benefit from integrating digital resources such as online practice platforms, interactive videos, or a companion app that allows students to practice in real-time with feedback.

Student-Centered Learning: More recent studies emphasize the significance of curriculum design in a student-centered learning approach, where instructional materials and goal setting help to meet individual learner's needs (Student-Centered World n.d.). The textbook may need to provide more opportunities for self-assessment and reflection, encouraging students to take ownership of their learning process. For example, interactive quizzes, progress tracking, and self-paced modules could be integrated into the curriculum to help students assess their mastery of shorthand skills.

Usability and Accessibility: The study by Avila and Lavadia (2019) highlights the importance of ensuring that learning materials are reliable and accessible. In light of this, the textbook should also be evaluated in terms of its accessibility for students with disabilities, including visual impairments or motor difficulties, which might impact their ability to use the stenograph machine. Incorporating adaptive features such as audio-based lessons or alternative formats can improve the inclusivity of the textbook.

The Need for a Contemporary Evaluation Framework

The need to validate the textbook in light of current research underscores the importance of an updated evaluation framework. Studies on instructional material evaluation, such as those by Smeets et al. (2021), suggest that both content validity and external validity criteria should be considered when assessing educational materials. Content validity ensures that the textbook accurately covers the necessary skills and knowledge, while external validity addresses its relevance to real-world applications.

In the context of stenography, integrating deep learning in speech recognition and transcription technologies is important. Current advancements in automatic speech recognition (ASR) technologies, powered by AI tools, can significantly transform transcription services, particularly stenography, by enhancing efficiency and accuracy (Lee et al. 2021).

Objective No. 2 Assess the acceptability of the developed textbook in Machine Shorthand along content, presentation/organisation, format and assessment.

The research highlights that the *Machine Shorthand* textbook for the Bachelor of Science in Office Administration Program is generally well-received in terms of content, organization, format, and alignment with course objectives. However, while the findings indicate overall acceptability, it is essential to critically examine these results in the context of recent research on the development and evaluation of instruc-

tional materials, particularly in technical fields like stenography.

Content

The research notes that the textbook aligns well with the course objectives, which is a critical factor in its effectiveness. According to recent studies, alignment between instructional materials and course objectives is key to improving student learning outcomes and retention (Mayer 2021). This alignment ensures that students engage with the material in ways that directly support their learning goals. However, content alignment should not only be evaluated based on its coverage of course topics but also its capacity to foster deep learning and critical thinking.

Recent studies by McKnight et al. (2022) emphasize the importance of instructional materials providing opportunities for higher-order thinking, particularly in technical and vocational training. In the context of the Machine Shorthand textbook, while it appears to cover the necessary skills, it could benefit from more complex, real-world problem-solving scenarios that challenge students to apply their skills in dynamic environments. Such an approach would push students beyond rote learning and into deeper engagement with the material.

Presentation and Organization

The research results suggest that the textbook is well-organized and presented clearly, with appropriate formatting that enhances student understanding. This observation aligns with findings by Fernando (2023), who noted that video presentations are effective tools in teaching, enhancing usefulness, motivation, performance, and assessment.

However, it is worth considering recent trends in instructional design that highlight the importance of multimodal learning experiences. For instance, the integration of multimedia elements such as videos, interactive diagrams, and digital simulations can significantly improve comprehension and engagement, particularly in skill-based courses like stenography (Mayer and Moreno 2021). Given the rise of digital learning environments, it would be beneficial to explore whether the textbook's current format (presumably print-based) could be augmented with these interactive features, particularly in the context of remote learning.

Format

While the research indicates that the textbook is deemed accessible, it is important to assess this conclusion in the light of current guidelines and technologies for accessibility. The study by Nguyen and Lee (2023) highlights the growing importance of ensuring that learning materials are not only accessible in terms of physical format (for example, easy-to-read fonts) but also in terms of inclusivity for students with diverse learning needs, including those with disabilities.

For example, it would be beneficial to evaluate whether the textbook supports students with visual impairments, motor difficulties, or learning disabilities such as dyslexia. This can be achieved by offering digital versions with features such as text-to-speech, adjustable font sizes, and screen reader compatibility. In an age where inclusive education is a critical priority, these considerations should be integral to any evaluation of the textbook's accessibility.

Assessments

The study suggests that the textbook includes assessments that align with the learning objectives and provides students with opportunities to demonstrate their understanding. According to recent research on assessment practices in technical fields, however, the focus should be on ensuring that assessments are not only aligned with course content but also encourage the application of skills in real-world contexts (Knight and Yorke 2021).

For instance, assessments could involve practical exercises that require students to use the stenograph machine in live transcription scenarios, rather than relying solely on written tests or exercises. This type of formative assessment has been shown to better measure student mastery of technical skills and provides immediate feedback, which is crucial for skill development (Dunning et al. 2022).

Objective No. 3 Identify necessary revisions for improvement and refinement in the developed textbook.

The study underscores the significance of ongoing evaluation and refinement of the developed Machine Shorthand textbook. It suggests that, although the textbook was generally well-received, minor revisions are necessary to improve its quality and usefulness. This approach aligns with best practices in instructional design, emphasizing the need for continuous improvement.

Continuous Evaluation and its Role in Instructional Material Development

Continuous evaluation of instructional materials is essential for ensuring that they remain effective and relevant. Research on the development of textbooks and educational resources emphasizes that textbooks should be viewed as dynamic documents, which evolve over time in response to feedback from students and educators. According to Clark and Mayer (2021), instructional materials are most effective when they are regularly updated and revised based on student performance data, changes in technology, and evolving pedagogical approaches.

One key aspect of continuous evaluation is the feedback loop-gathering feedback from students, teachers, and other stakeholders and using it to revise and improve the content. In the context of the Machine Shorthand textbook, this feedback could be gathered through student surveys, teacher assessments, and usability studies, which would identify areas where the textbook could be more user-friendly or better aligned with student needs. For example, students might report difficulties in understanding certain abbreviations or exercises, suggesting that more examples or clearer explanations could be added.

Recent studies, such as those by Nhan (2024), emphasize the importance of incorporating formative assessment data in the revision process. Formative assessments not only evaluate student learning but also identify areas of content or instructional strategies that may require adjustment. In technical fields like stenography, where accuracy and precision are crucial, the role of continuous feedback is even more vital, as small errors or unclear instructions can impede skill development.

Enhancing Quality through Minor Revisions

The study's observation that only minor revisions are needed suggests that the Machine Shorthand textbook is relatively effective, but this does not diminish the importance of making those revisions. In fact, as noted by Anderson et al. (2023), even small adjustments to educational materials can have a significant impact on learning outcomes. For example, small refinements in how key concepts are introduced, the clarity of instructions, or the inclusion of additional practice exercises can substantially improve a student's ability to master the material.

The minor revisions proposed in the study could involve refining technical explanations or adding supplementary content to enhance clarity. In line with this, using plain language can improve understanding of complex topics, particularly in technical fields. (Nord. 2018). In the case of stenography, such revisions might include more detailed breakdowns of machine shorthand symbols or additional practice exercises for challenging letter combinations.

Additionally, the inclusion of updated examples from real-world contexts-such as transcription of court testimonies or live broadcasts-could be valuable in enhancing the textbook's applicability to students pursuing careers in stenography. This idea is supported by the work of King et al. (2022), who argue that authentic learning experiences help students better grasp the relevance of theoretical knowledge and prepare them for real-world tasks.

The Need for Integration with Technological Advances

Another critical factor in the ongoing evaluation and revision of the textbook is the integration of new technologies. The advent of digital learning platforms, interactive tools, and educational software has revolutionized the way students learn technical subjects. The textbook, while effective in its current form, could benefit from technological enhancements such as interactive exercises, video demonstrations of stenography techniques, or mobile apps for practice outside of the classroom.

As noted by Smeets et al. (2023), digital tools can provide immediate feedback to students, which accelerates learning and helps students build proficiency in technical skills more quickly. Integrating these digital resources could complement the textbook, providing students with a

more immersive and flexible learning experience. This technological integration would also align with the increasing trend of hybrid and online learning environments, where students may need digital versions of textbooks or supplementary digital content for remote or asynchronous learning.

Iterative Process of Instructional Material Development

Finally, the iterative process of textbook development involves not only collecting feedback but also implementing changes and reassessing their effectiveness. Recent studies such as those by eLearning Industry (2020, February 18), emphasize the value of an agile, iterative process in educational design. An iterative process allows the textbook to evolve in real time, with frequent updates that respond to emerging challenges, new pedagogical insights, and technological advancements.

In the context of stenography, for example, emerging trends in artificial intelligence (AI) and speech recognition technologies could influence how stenography is taught. The integration of AI into transcription and shorthand practices could be reflected in the textbook through updates on how AI tools are changing the landscape of transcription work, providing students with the knowledge to stay ahead of industry trends.

CONCLUSION

The results of this research emphasise the complete acceptability and effectiveness of the developed textbook in Machine Shorthand for the Bachelor of Science in Office Administration Program. In terms of content, presentation/organisation, format, and assessment, the textbook established high levels of alignment with course objectives, clarity, accessibility, and relevance. Notably, while minor errors were identified in the content, it did not significantly reduce the overall acceptability, as indicated by the majority of criteria receiving highly acceptable ratings.

Furthermore, the study highlights the importance of continuous evaluation and enhancement in the developed textbook. Recommendations for necessary revisions, although minor, serve as valuable insights for further enhancing the quality and usefulness of the textbook.

RECOMMENDATIONS

To enhance the effectiveness and quality of the developed textbook in Machine Shorthand for the Bachelor of Science in Office Administration Program, several key recommendations are proposed.

First, it is essential to address and correct any identified minor errors to maintain the textbook's accuracy. A thorough content review by subject matter experts should be conducted prior to future editions. Additionally, the textbook should be periodically updated to reflect the latest trends, technologies, and best practices in office administration, ensuring its ongoing relevance for future students. Continuous feedback from both students and instructors should be gathered and incorporated to guide future revisions. Furthermore, integrating more interactive features such as practice exercises, case studies, and multimedia resources will enhance student engagement and accommodate diverse learning styles.

A thorough review should also be conducted to ensure the textbook is fully accessible to students with disabilities. Before releasing a revised edition, pilot testing the updated textbook with a small group of students is recommended to gather feedback and make necessary adjustments. Lastly, offering instructor training on effectively using the textbook will maximize its impact and ensure that instructors are well-prepared to integrate it into their teaching.

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APPENDIX

The appendix includes the questionnaire used in this research study. This questionnaire was designed to gather relevant data from participants to assess their perceptions and feedback on the developed Machine Shorthand textbook. It serves as a critical tool in understanding the effectiveness, clarity, and relevance of the textbook's content. The questionnaire is provided here to offer transparency regarding the data collection process and to allow readers to review the specific questions posed to participants. Each section of the questionnaire is referenced within the main body of the study to align with the research objectives and findings.

SURVEY QUESTIONNAIRE

"ACCEPTABILITY OF THE INSTRUCTIONAL MATERIAL DEVELOPED IN MACHINE SHORTHAND FOR BACHELOR OF SCIENCE IN OFFICE ADMINISTRATION (BSOA)".

Greetings of peace and good health.

Please complete this questionnaire accurately and truthfully. Your responses will be used for research purposes to determine the acceptability of the instructional material developed in Machine Shorthand for Bachelor of Science in Office Administration (BSOA). Your answers to this survey will be treated with strictest confidentiality.

Thank you very much!

Researcher

PERSONAL PROFILE

( ) Faculty ( ) Student

Name: (optional).....

School .....

Sex: ( ) Male
( ) Female

Age: ( ) 18-21
( ) 20-22
( ) 29-31
( ) 23-25
( ) 32-34
( ) 26-28

	Content	*4*	*3*	*2*	*1*
1	Lessons are aligned with the course objectives as specified in the CMO				
2	Development of critical thinking				
3	Discussions of the lessons appears accurate, clear, and in sequential order.				
4	Terms used are easy to understand				
5	Textbook contains no grammatical, spelling, or other typographical errors.				
6	Exercises are provided for the students to practice essential skills.				
7	Suggest aids for the teaching of pronunciation, e.g. phonetic sounds				
8	Examples of shorthand strokes were given				

	Presentation/Organization	*4*	*3*	*2*	*1*
1	Textbook is organized appropriately within the units of study				
2	Provide balance activities for hands-on				
3	Activities are appropriate and challenging				
4	Materials provide students with opportunities to integrate skills and concepts.				
5	Textbook provides accessible and structured text and images to meet the needs of the learners.				
6	Simplicity of the design				
7	Orderly presentation of the lessons/activities				

Please a check on the column that corresponds to your answer based on the scale shown below:

Scale	*Interpretation*	*Description*
4	Highly acceptable	All aspects of instructional material are very adequately covered, and the quality is superior.
3	Moderately acceptable	The major aspects of the instructional material are covered with average standards
2	Slightly acceptable	The major aspects of instruction or work are covered with minimum acceptability
1	Not acceptable	The major aspects of work are very inadequately covered and of unacceptable quality.)

	Format	*4*	*3*	*2*	*1*
1	Format design includes titles, subheadings, and appropriate cross referencing for ease of use.				
2	Textbook is easily divisible into smaller sections in order to enable modularity				
3	Visuals are accurate, support the text, and enhance student understanding.				
4	Tasks move from simple to complex				
5	The format is compatible to the interest of the learners				

	Assessment	*4*	*3*	*2*	*1*
1	Assessments are relevant to the discussion				
2	Assessments are accurate, support the text, and enhance student understanding.				
3	Assessments move from simple to complex				
4	The assessment took into account the context of the particular subject that has been discussed.				
5	Clearly convey the idea or thoughts in the questions or activity				
6	Assessment is accurate, consistent and repeatable.				
7	Assessment results in learning what is important and is authentic and worthwhile.				
8	Assessment is practicable in terms of time, resources and student numbers.				